

Sir Douglas opposes delay on London Bill

by Sue Reid

A strong argument in favour of London University submitting a private Bill to Parliament this autumn to enable it to try out major constitutional reforms has been put forward by Sir Douglas Logan, principal of the university. He maintains that if the Bill is not presented in the next session it will mean a harmful delay in bringing about changes.

In the third report of the university's consultative committee, set up to promote discussion on the Murray Report, Sir Douglas warns that to delay the main reform, which proposes making the vice-chancellor a full-time salaried, academic and administrative head, will seriously impair the university's efficient running.

He adds that Parliament should be given an early opportunity to decide whether the four statutes proposed by the university, which were disallowed by the Privy Council in May, are in the interests of the university or not.

Last month the university senate voted to defer its decision on the arrangements for deputising the Bill. The official wording of a recommendation that the senate should consider proposed arrangements for submitting the Bill on November 27 was changed after the London

School of Economics and Bedford College succeeded in getting an amendment carried to delete the autumn deadline.

The LSE has opposed plans to introduce the Bill this year.

The senate will now consider the matter again in October or November after comments have been received on the newly-published draft Bill from the governing bodies of the schools. The last date the Bill can be submitted for consideration in the next session is November 27.

At last month's senate meeting the third report, which shows a large measure of agreement about the aims of the Bill, was also considered. In the report, which sums up arguments on the whole issue, Sir Douglas estimates that to defer debating the Bill until November 1976 would mean that the statutes were not implemented until 1979 at the earliest.

He believes it is wrong in principle that the university should not be able to change its constitution, after proper consultation, to meet changing circumstances, and is strongly in favour of releasing it from restrictions placed on it by the University of London Act 1926 which limited the senate's power to amend statutes.

Vets look gift report in the mouth

by Alan Cane
Science Correspondent

Opinions were divided in the veterinary schools this week over a proposal that the Government should spend £250,000 to buy veterinary practices for the schools that do not have them (*The Times* August 1, 1975).

The proposal was one of the chief recommendations of a committee of inquiry into the veterinary profession chaired by Sir Michael Swann, chairman of the BBC and a former vice-chancellor of Edinburgh University, which reported last week.

It has for the most part been warmly received by the veterinary schools which have endorsed most of the chief recommendations.

Professor G. H. Arthur, chairman of the board of Bristol University Veterinary School, said that even if none of the recommendations was implemented, the report had collected an invaluable mass of detailed information.

Opinion on whether the university should be bought a practice was divided in the school; some people argued that it was difficult to integrate veterinary teaching with clinical practice. He thought, however, that the school could obtain a reasonable practice for £50,000, one of the most expensive suggested in the Swann report for the five schools.

At Cambridge, Mr F. R. Spradling pointed out that the university already had a small practice,

together with a university farm, and that opinion was split over the value of a full-scale practice.

Many found them a mixed blessing, arguing that the practice staff tended to become isolated from the teaching staff in the school resulting in increasingly smaller levels of collaboration.

Professor W. I. M. McIntyre, dean of the Glasgow University Medical School, argued trenchantly for the Swann recommendation. He said: "There is an honest difference of opinion in the schools over the need for practices, but I have no doubt that this recommendation is the only hope we have of progress."

He went on to explain that the practices would have to be run by the senior academic staff in the schools. With the new emphasis on preventive veterinary medicine engendered by the Swann report, it was essential that academic staff should be given clinical experience in real conditions.

Professor McIntyre thought the Swann committee had erred on the conservative side in recommending only £250,000 for all five schools—Bristol, Cambridge, Glasgow, Liverpool and London (Edinburgh already has a practice). To be effective at least £250,000 should be spent on each school. At least 200 farms should be included in each practice. All the schools welcomed the recommendation that the Agricultural Research Council should spend more money on research in the schools.

Professor McIntyre thought that as much as 10 per cent of ARC research money could usefully be spent in the schools, pointing out the big differential in the amount the Medical Research Council spends on research grants in the universities compared to the ARC.

Professor McIntyre said he believed that the Swann report represented a breakthrough which would eventually lead to the establishment of a consultant class within the veterinary profession.

He thought that there would be need for only about 50 of these specialists, but he did not believe the work could adequately be done by general practitioners.

It was essential that the recommendations of the report be implemented so that practice consultants could do the necessary training and experience.

Professor Arthur of Bristol said the point that veterinary education is not more expensive than medical education, because many veterinary school costs are disguised through the contribution of the Department of Health and Social Security.

The Agricultural Research Council said this week that it was looking at the report and would be reporting on the specific costs in due course. It said it was keen to support worthwhile research in the universities and was open to suggestions from the veterinary schools for research projects.

Universities spark revolution and go on fighting

by Ben Pinlitt

A feature of revolutions is that students tend to play a prominent part in them and this is certainly true of the revolution in progress in Portugal. Although the coup which overthrew the Coimbrão regime came from the Army, the influence of revolutionary ideas in the universities was important in bringing it about, and students have been in the forefront of the myriad ultra left groups—Maoists, Trotskyists, anarcho-syndicalists—which have acted in many ways as revolutionary pacesetters. What is notable (but perhaps not surprising) is that transfer of control in the Ministry of Education and Culture since the coup to ministers and officials whose sympathies are broadly with the orthodox Communists and their allies has failed to dampen the fires of campus revolt.

Before the coup, in a highly repressive society where any statement of opposition or publication could lead to arbitrary arrest, torture and indefinite imprisonment, universities were oases of relative liberalism. Almost entirely restricted to the children of Portugal's small middle and upper classes, higher education was regarded as a sector where a limited degree of youthful rebellion was tolerable, at any rate unavoidable. This did not make the faculties safe or free. Students were frequently arrested and beaten by the FIDE, the notorious secret police, and student demonstrations were automatically broken up.

In many faculties academic preferences were heavily based on political factors and any association with opposition groups was a bar to appointment. Nevertheless, there were many professors who were hostile to the intrusion of political huggery on to the campuses and the social position and youth of students (most started at 16 or 17) helped to give them a comparative immunity from the kind of treatment meted out to peasants or workers who involved themselves in clandestine activity.

Hence the universities were able to become centres of left-wing opposition to the regime and movements such as *Movimento de Esquerda Socialista* (MES), founded in the early 1960s, and the Maoist *Movimento Revolucionário do Partido do Proletariado* (MRPP), set up in 1970, developed a strong base among students and junior lecturers. The April 1974 coup occurred in

part because the ideas discussed and developed in the universities were allowed to spread to the Army.

By the early 1970s the vast majority of lower ranking officers in Africa were conscripts, many of them university students who could obtain a commission after one year of study and four or five months' military training. The students took left-wing politics to Africa and in many cases brought Africa and African approaches to revolution back to the universities when they returned to complete their studies. A cross-fertilisation of ideas between students, young lecturers and junior officers created the basis of the Armed Forces Movement (MFA), the main dynamo of the revolution.

When the coup came the students felt that in a very immediate sense it was their revolution, and they acted accordingly. With power in the faculties transferred to committees on which teachers and students were equally represented (and which were subject to the sovereign authority of full general assemblies) the expulsion of professorial and other staff associated with the old regime was widespread. In some faculties the students went much further. Lisbon's Faculty of Law, in particular, rapidly transformed itself from a bastion of the old establishment into a revolutionary stronghold.

Initially the Communists, whose harlequin record of resistance to fascist over several decades was widely admired, were able to control the faculty through the Union of Communist Students. This did not last long. The Maoist MRPP, and other far left democracy which took over full democracy within the faculty and direct revolutionary action outside it, was far closer to the students' mood than the orthodox Communists who emphasized discipline and stressed Alvaro Cunhal's strategy of restraint. Hence the MRPP student organization, Students' Front, Marxist-Leninist, was able to oust the Communist take over the faculty and replace the entire teaching staff of 60 professors and lecturers with MRPP adherents or sympathizers.

Mostly young, including some without degrees or whose formal training was in other disciplines, these new teachers have implemented student demands to emphasize Marxist-Leninism in the curriculum and reject any kind of gradist or selection through examinations.



The Ministry of Education and Culture has regarded political developments on the campuses with a combination of indulgence, disapproval and impotence. Until May, 1975, teaching staff elected by students were receiving salaries, while elected teachers were not; now the ministry is paying both. The main crisis, however, has arisen not over appointments but over examinations. The students (including many not on the ultra left) consider selection and assessment which involves grading to be elitist and destructive. The ministry is concerned to maintain standards and not exceed quotas. The result of this clash has been stalemate and disarray.

The problem has not just been within universities (where gradist in many institutions has been limited to a simple "pass or fail" distinction) but more acutely at the level of entrance requirements. Following the April 1974 coup, pressure from teachers and students resulted in a drastic lowering of the standard for entrants so that last year there were scarcely any failures in the qualification exam. The result was greatly to intensify the problem created by a "bulge" of applicants caused by an influx of repatriated colonialists and demobilized soldiers and by the coming-of-age (for which no provision was made) of a large cohort of young people.

£28m building plan signals student cuts

by Brian MacArthur

There was widespread disappointment this week at the size of the 1976-77 building programme. The £28m, which is exactly half the programme for 1975-76, although student numbers are expected to increase by up to 15,000 in the new academic year.

Since new buildings take several years to design and construct, the programme was seen as the first serious indication that the Government is considering a further reduction in the student target of 640,000 by 1981-82.

In his announcement last week, Mr Mulley, Secretary of State for Education and Science, said that he would focus expenditure on new buildings to a value of about £28m at current prices (explained later as being in real terms). The University Grants Committee is getting £8m of the £28m, compared with a share of £15m from a total programme of £55m for 1975-76.

On the college and polytechnic programme, the DES is now asking local authorities to submit plans (which some may be reluctant to do in present circumstances) and decisions are expected by the end of October. If inflation continues, the £28m may be increased.

A university student residential place now costs about £3,000, half of which is expected to come from loan subsidy.

Some 650 residential places have been built for £5m, although universities incur heavy repayments on other firms.

Out of the £15m in the 1975-76 year, more than £3m went to residential places, some £2m was allocated to modernization and modifications to meet the new Fire Precautions Act, about £5m went to student teaching plant and £750,000 was for computer buildings. There were only three major buildings—the Arts Centre at Warwick (£1.5m), an accountancy building at University College London (£1.75m) and a £1m contribution to the Sainsbury Art Centre at East Anglia.

A building programme of £8m will not therefore build very much. The priorities of the UGC are expected to be for medical places and residence, as well as some work on computer centres, better fitting and on fire precaution. Colleges and polytechnics have received the same proportion of a smaller programme as last year, another indication of the Government's commitment. They are now anxious to know if their £20m will be divided equally between polytechnics and colleges.

Dr George Tolley, director of Sheffield Polytechnic, said that it already needed up to £2m of building to meet DES standards. Sheffield was not the only polytechnic where the number of courses was growing, where there was a squeeze on local spending, and now a small building programme. Student admissions might have to be cut next year.

Universities are expecting student numbers to grow by about 9,000 in 1976-77 to a total of around 260,000—the addition of another 10,000 to the system, and the polytechnics expect a growth of about 5,000 or 6,000 to a total of 90,000 degree students.

	Only	FR
1971/72	23.1	27.5
1972/73	22.8	27.8
1973/74	18.2	22
1974/75	11.5	27
1975/76	11.5	31
1976/77	11.5	20

NOTES: Further education figures are for "starts" in the year, which is always lower than the enrolment figures. University figures are for "starts" in the year, which is always lower than the enrolment figures. 1975-76 figures are programmes not started.

Meeting ends PNL era

A chapter in the history of the Polytechnic of North London was closed last week when the joint polytechnic/inner London Education Authority advisory committee held its eighteenth and probably final meeting.

The committee, which was set up in December, 1973, to look into the development of the polytechnic, warmly welcomed the recent report on the polytechnic by the Council for National Academic Awards.

It congratulated the staff and students on the "considerable progress" that has been made. The polytechnic's future was now better assured, it said.

The committee is to submit its own final report to the authority and to the polytechnic governors. It will recommend extending the physical development plan and continuing to develop the academic plan. The polytechnic should establish its resource priorities and improve its services by their reallocation, it suggests.

The committee thanked Mr Jack Straw, its chairman, and the polytechnic and authority staff for their work. The committee will recommend to the governors and the LEA that it be formally disbanded.

Save Fircroft jobs-report

The Council for Academic Freedom and Democracy has called for immediate action to avert the threatened closure of Fircroft College, Birmingham, and save the jobs of its four full-time academic staff.

In a special report published this week the council asks that the present freeze on admissions, imposed pending a Department of Education and Science inquiry into the future of Fircroft, be lifted.

Trouble began at Fircroft, an adult education college, earlier this year when the students refused to recognize the principal, Mr Tony Corfield, and introduced their own education syllabus.

When the college was threatened with closure by the trustees, the students occupied the main building and were only removed after court action. The trustees have said that the closure will be temporary and admissions will be suspended for the 1975-76 intake until after the DES inquiry.

The council claims that this is unfair penalization of the jobs of the permanent staff. It judges that the education programme is a significant advance in the organization of post-school education in Britain. The report calls for a complete overhaul of the college authority with a view to ending administration by the Fircroft Trust.

Leeds to validate voluntary college broad-based degrees

by David Hencke

The College of York and Ripon St John is to be one of the first non-voluntary colleges to offer a new range of degree and diploma work outside teacher training.

Leeds University announced last week that the college has received validation for awards of Bachelor of Arts and Bachelor of Science ordinary and honours degrees, and the Diploma of Higher Education. Students will be able to take a combination of two subjects, and in the case of some science and mathematics courses, a combination of three.

Mr J. V. Barnett, principal of the new college, which has been formed by combining two Anglican colleges of education, said the new courses were designed to attract students who needed a broad range of opportunities.

The college will be able to offer 18 different subjects in various combinations and students taking the new degrees will study alongside trainee teachers.

The balance between students taking teacher training courses and general degree courses will change in the next few years. Only 55 stu-

dents will enter the college to take general courses in September but by 1981 the numbers will rise to 800 of the 1,600 students.

Those taking initial teacher training courses will decline rapidly. The college is to become the base for the new York and District Education Centre which opens on September 1 and will serve a wide area of North Yorkshire.

Leeds University has also announced the awards of new degrees for four other colleges in its area training organization.

Trinity and All Saints College, a large Roman Catholic college on the outskirts of Leeds, will be offering a bachelor of education (ordinary and honours), a bachelor of arts and bachelor of science ordinary degree and a postgraduate certificate of education course.

The city of Leeds and Carnegie College will offer a B Ed ordinary and honours course and a PGCE.

North Riding College of Education, Scarborough, will offer a diploma of higher education and certificate in education and a B Ed (ordinary and honours).

Use facilities more efficiently Dr Hampson says

The higher education sector has more efficient in its use of land and resources, Dr Keith Hampson, secretary of the Conservative Party, warned this week.

Lord Crowthorne-Hunt had been effective means of analysis or control at his disposal and had been hopeless not creating incentives for better practice, he said.

Replying to a parliamentary question from Dr Hampson on the department's provision for meeting underused capacity in universities and polytechnics, Mr Mulley, Secretary of State for Education, said the University Grants Committee kept an estimate of the underused capacity, which could be compared with student numbers in particular subjects and used for forward planning.

Similar information on polytechnics was obtained from local authorities and the DES was in the Committee of Directors' review techniques, which would be used to capacity in the polytechnics, he said.

External student problem for study

This Technician Education Council has set up a working party to consider how to cater for external students—those who do not have access to a college offering their particular course or who cannot attend regularly because of constraints at home or work.

The working party will consider how to extend present provision for technician education, rather than create alternatives. It will make proposals to the council at the end of the year.

NEXT WEEK

Richard Hoggart—a profile
Bill Gutteridge on the
Hall of residence costs
The case for literary

Weathermen sweat out ice age

by Alan Cane, Science Correspondent

The world is getting colder and will be colder for several decades, according to Professor Hubert Lamb, director of the Climatic Research Unit and the University of East Anglia. However, his forecast is not shared by all weather experts.

So next week should see a lively exchange when the world's weathermen meet at East Anglia for a week long conference on climatic change. Bottled "Long term climatic fluctuations: and the future of our climate" and sponsored by the World Meteorological Organization and the International Association for Meteorology and Atmospheric Physics, the conference will bring together the most broadly based group of weather specialists ever assembled.

There will be meteorologists, mathematicians, paleoclimatologists, marine biologists and geologists from Britain, America, Russia, France, Germany, Canada, Sweden, Denmark, New Zealand and Norway.

The last time there was a similar meeting—an American conference in 1972 where geologists and

meteorologists first began to try to see each other's view point—the meteorologists realized with shattering force just how near the geologists believed the end of the present interglacial period to be. In layman's terms, the return of the ice was just around the corner. However, this view has moderated a little since.

Professor Lamb says there is widespread agreement that the weather in the first half of this century has been typically stable. It will be much more volatile in the remaining years of the century and there will mean long periods of extreme weather—long hot periods, long cold periods, long wet periods, long dry periods.

He says we are still a long way from the accurate prediction of next year's weather or even tomorrow's weather, but believes we are getting close to what he describes as an "actual type of prediction, based on experience and probability. And he firmly rejects the lay view that such predictions teach only a little, advanced, in bed cases at night, or the angle of the moon in its darkest East Anglia the present moon lying on its back is taken as a sure sign of rain.

Scotch and saki



Some 700 Japanese students suffered the "cultural shock" of a two week visit to Scotland. Ronald Faux reports, page 4

Richard Hoggart "Chatto's lawyer said that it was one of the most dangerous books he had ever read." The author of "The Uses of Literacy", who becomes warden of Goldsmiths' College, London, next year, talks to Joanna Holland, page 4

Visibly sinking Plans to make Venice an international study centre are failing through a combination of Italian intrigue and the economic crisis. Frances Gibb reports, page 7

Quantum mechanics M.L.G. Redhead discusses Max Jammer's new book on the philosophy of quantum mechanics: "A work of genuine scholarship", page 12

CNA's public face Bill Gutteridge on Michael Lane's new book: "It serves to remind us of some of the shifts and changes which have taken place within 10 years", page 11

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Bucks students seek local authority grants

by David Walker

Two students accepted by the University College at Buckingham are to apply to their local authorities in the hope of getting discretionary grants to study for its two-year licence.

Professor Max Beloff, the principal, said the college was waiting to see whether local education authorities would finance students for the courses in law and economics being offered at the "Independent University". Individual students who applied would be helped in their negotiations with their authorities.

The college has recently begun an advertising campaign to attract students, inviting applications from school leavers for the courses which begin in February next year. The advertisements give prominence to the fact that the Low Society and the Bar Council have recently recognized the Buckingham qualification as giving exemption in professional examinations.

The college plans to take 80 to 100 students, excluding a number of Americans who will be following special courses. Dr C. Clarke, fellow of All Souls College, Oxford, the Buckingham dean of admissions, said it had no ideal ratio of applicants to number of places offered.

"We will take the best that come along. The largest single group of applicants are those leaving school. They must have two A levels but we are not niggling about grades."

Sounds strange in the halls of Keele University

by Patricia Santinelli

Heavy breathing and the sounds of running water will be echoing through the halls of Keele University when a new experiment in psychoacoustics begins this autumn.

The experiment will be carried out by Mr Tim Souster, whose appointment as research fellow in electronic music in the department of music was announced last week.

The fellowship which is expected to be for two years was set up with a £9,000 grant from the Leverhulme Trust Foundation (THES, June 20).

Mr Souster, who is one of the leading British composers of his generation in the field of electronic music, is currently developing electronic techniques in conjunction with live musical performance.

A BBC music producer until 1967, he then spent two years as composer in residence at King's College, Cambridge where he founded an ensemble for live electronic music, Intermix, which has performed throughout Great Britain and parts of Europe.

His most recent composition World Music will have its first London performance at the Institute of Contemporary Arts in September.

'Useless' tasks important

The time scale of university research exceeds the life time of any parliament and cannot be judged according to narrow standards of usefulness. Dr A. W. Morrison, vice-chancellor of Bristol University said recently.

Addressing a congregation of the university which awarded honorary degrees to Sir Peter Scott, Lady Spencer-Churchill and Professor Jerome Bruner on August 8, Dr Morrison advocated deep suspicion of the notion of usefulness. The concept was often used in an ill-considered way, he said, and part of the purpose of the university was to see that apparently useless research was carried out.

He cited historical study on whether Richard III ordered the death of the Princes in the Tower, saying he wanted at least a few professionals to worry about the matter. It was interesting and it was important for society to consider the establish-

ment of applications in the early autumn. The prospectus, published in March, just missed the schools' Universities Central Council on Admissions deadline, he said, and many pupils were waiting till they had a rough idea of how their UCCA applications fared before considering the college.

The college is making much of the informal assurance it has received from universities about its licence being recognized as a qualification for postgraduate work. Glasgow, the London School of Economics and Reading have given definite promises, while Birmingham and Manchester have promised sympathetic consideration.

Officially London University, whose regulations subsume those of the LSE, will consider each postgraduate application on its merits while Manchester University says the whole matter is still under consideration.

The college is offering about 25 scholarships for which candidates will take examinations during the summer. Dr Clarke emphasized that candidates of "sufficient merit" will have to present themselves before the college's "open days" had attracted representatives from over 80 schools. He had visited a number of schools to advertise the college.

Professor Beloff said only a few universities had offered recognition because there would be only a small number of licentiatees going on to postgraduate work and at this stage a pilot scheme was all that was necessary.

together with Eastern Arts originally commissioned for the Cambridge Arts Festival.

Although Mr Souster will continue giving the occasional performance with his group both in Keele and outside, he is looking forward to setting up an electronic studio from scratch and devoting his research work in psychoacoustics to the study of sound.

"Of course you have to be careful how these tests are set up and I hope to have the help of other members of the university, for example, statisticians," he said.

The tests are devised by formulating a series of ordinary sounds on tapes which are electronically distorted. The degree of distortion is then gradually reduced until sounds are back to normal.

Throughout this process, the audience is asked to jot down at what stage they recognized a note or sound.

"It is too early to say what the results will lead to. It is not only an interesting scientific experiment, but also, from the point of view of a composer, it may well mean new insight into the effect that music has on people and thereby alter composition," he added.

Long, hard look at universities

An outline of each university, including its history, student categories, academic organization and courses, accommodation, welfare and recreation is a new feature of the Compendium of University Entrance Requirements for First Degree Courses in the United Kingdom 1976-77.

The compendium, now in its 13th edition, is the "authoritative" central source of information on entry requirements for first degree courses at 88 universities and university colleges. It contains details of some 5,000 first degree courses available to students, including both the course requirements and the universities' general requirements.

The Compendium of University Entrance Requirements 1976-77, from Lund Humphries, The Convent Press, Drummond Road, Bradford BD8 8DH, £2.90, (post free in the

Fewer graduates choose industry

by Sue Reid

Graduates are avoiding industry as a career, a research team from Oxford University has claimed. The team says that the latest figures on the destinations of Oxford students show that less than one in five first degree graduates enter industry or commerce.

The largest increase in recruitment has occurred in central and local government with the number of Oxford students choosing this career having tripled in the last six years. Accountancy and law have also become popular. More than 11 per cent of graduates elected these professions in 1974 compared with just seven per cent in 1969.

But the percentage of Oxford students entering industry has declined. Only 19 per cent of graduates chose this field in 1974, compared with 15 per cent in 1972 and 20 per cent in 1969.

Mr David Lethbridge, a fellow of the Oxford Centre for Management Studies, and Mr Robert Dunsmore, assistant secretary for the appointments committee at the

university, who have published their findings in this month's edition of The Director, blame this situation on the differences between industry and the academic world.

The article says: "Industry is an unknown territory and therefore students' views tend to be a pot-pourri of prejudice based on such things as the Lomax affair, expense accounts, pollution, the rat race, possible redundancy at 40, misleading advertising, and the north of England complete with endlessly smoking factory chimneys." It adds that students have expressed doubts about the use of industry and the morality of private enterprise.

Mr Lethbridge and Mr Dunsmore say graduates are often concerned by the stresses and strains and possible health hazards of a management career. They are uncertain whether the lifetime remuneration will equal that of a more secure job elsewhere with more reliable pension provisions.

A general ignorance about industry is also pinpointed by the two academics. They complain of a lack of knowledge among teachers and the public.

The article points out that ac-

ademic excellence alone is no qualification for top management but stresses that industry requires a proportion of the country's best and able people. Few of the people could now escape the mill of higher education and therefore it was to graduates that industry should look.

The attractiveness of industry should be enhanced in spite of its lack of power in industry to model widely held views, compared with that of teachers, politicians and media, said the research team. The image of industry needed improving, possibly by encouraging recruited graduates to talk to students.

Figures published in The Director on the destinations of all British university graduates in 1973 and 1974 reveal that the appeal of law and commerce is stagnant. Just 27 per cent of first degree graduates chose this field in 1974, compared with 28 per cent in 1973.

Similar trends are developing in industry, say the Oxford researchers. Twenty years of research in the United States have shown a steadily downwards, most dramatically on the overall measure of motivation to manage.

News in brief

£27,000 regional library study

The British Library has awarded grants to Loughborough University and Leeds Polytechnic totalling £27,000 to examine library use in their respective regions.

The studies will investigate "failures" in supplying books and materials to readers—for instance, those that cannot be borrowed at all and are stocked only by the largest libraries, such as abstracting journals, and expensive reference works.

Students badly housed

More students are being housed in low standard accommodation as the national demand for new and refurbished housing stock grows, Mr Robert Hall, president of the National Union of Students 1974-75, claimed at the polytechnic students' conference recently. Students did not seek better housing conditions, he said, but the rest of the community had needed dry, clean accommodation with study space.

Principal designate

Professor Arthur Johnston, of the University College of Wales, Aberystwyth, has been appointed principal designate of the college. He will be based at the Elizabeth Gascoigne College and Manchester and Mother College of Education. Professor Johnston currently holds the post of Rector of English at Aberystwyth.

Researchers researched

A team from Leicester University, under Professor A. J. Meadows, of the department of astronomy, has received a grant of £5,400 from the British Library to examine articles about research that appear in learned journals.

Swansea judgment

An error in the transcript of the industrial tribunal's judgment in the case of Mr Michael Weston versus University College Swansea over alleged unfair dismissal (THES August 8) has been drawn to our attention.

The quote from sub paragraph four of paragraph six of the first schedule to the Trade Union and Labour Relations Act 1974 was incorrect. It read "fair" instead of "unfair".

SSRC appointments

In the profile (THES, July 25) of Dr Cyril Smith, new secretary of the Social Sciences Research Council, it should have been made clear that the secretary appointed by the SSRC not by the Department

New courses help overseas doctors speak English

by Frances Gibb

Leicester University has designed a set of courses to help overseas doctors overcome language difficulties and communicate more easily with their patients.

The courses, designed by a team of English language specialists in the department of linguistics and modern English language, will be tried out this autumn by groups of 25 overseas doctors at four colleges of further education—Putney, Bourneville, Nelson and Colina and Oxford.

If successful, the teaching material and audio-visual aids will be made available in a national scale next year.

Mr Christopher Candlin, project director and a senior lecturer in the department, said: "We are hoping that those preparing for the General Medical Council tests in English language and clinical competence as well as overseas doctors already employed by the National Health Service will benefit considerably from the courses."

The General Medical Council, whose new examination for overseas doctors earlier this year showed a low rate of success in its results, said it was not in a position to comment on the suitability of one set of courses as opposed to others.

Dr A. F. Sayeed, chairman of the Overseas Doctors' Association, welcomed the courses and said the ODA had been closely involved in developing them. "The courses should not only help doctors to pass the GMC examinations but also help them to improve communication between doctors and patients."

The ODA had been requested that the GMC and Department of Health and Social Security organize this kind of course, he said. "The long term benefits to the National Health Service would make it a very good investment."

Mr Clive Bruton, one of the course designers, said: "We see the problems not being a question of English grammar or medical terminology but of understanding the language of the doctor and the patient. Communication is the key to the patient's health and the doctor's success."

The courses are based on 18 months' research in 18 hospitals by Mr Bruton and Mr Jonathan Leuther, a research associate, of the way doctors communicate in clinical consultations in general practice.

The research was undertaken by the old of a grant of £8,000 from the Nuffield Provincial Hospitals Trust.

Bodleian could be paralysed by jobs freeze, curators say

The effect on the Bodleian Library at the University of Oxford of frozen staff vacancies is already being felt and could be paralyzing the library's work, its curators warn in their annual report for 1973/74.

Most graduates' members of the library staff are specialists whose duties cannot easily be passed on to others, who in any case are already fully occupied, the report says.

Government launch 'statistics for your pocket' campaign

Britain's balance of payments in deficit by £369m in 1974, a credit by £460m in 1969 but by £3,838m in 1970 was the worst year was in deficit to the tune of £3,838m. With 1970 as the base year, the deficit in 1974 was £3,838m.

Such figures, which form a background to the country's economic difficulties, are taken from United Kingdom in figures and important national statistics for the years 1951, 1969, 1973 and 1974. It is part of the campaign by the Government to encourage a higher level of awareness in the population.

'Golds' rush could start on campus

by Frances Gibb

Centres of sporting excellence should be developed at universities and colleges to provide for the needs of gifted sportsmen and women, Mr Denis Howell, Minister of Sport, proposed last week.

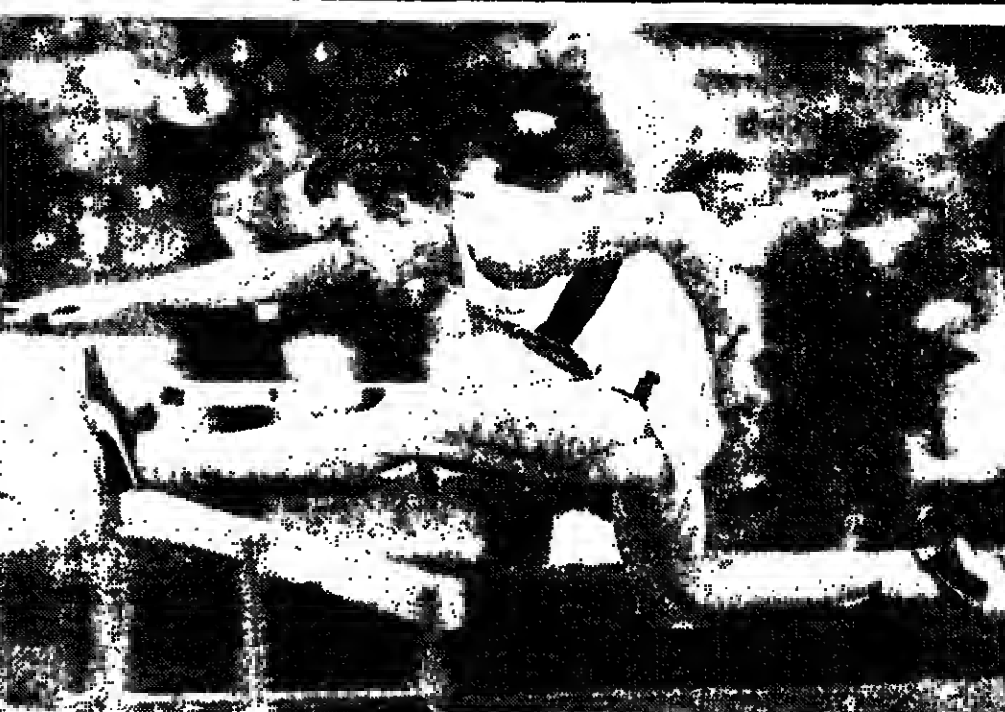
A working party of representatives from universities, polytechnics and colleges and national sports coaches has been set up, chaired by the minister. It will investigate which universities and colleges would be most suitable for development as centres based on departments of physical education.

Introducing the White Paper Sport and Recreation last week Mr Howell said: "Provision for gifted sportsmen and sportswomen has been needed for a long time. There is no reason why Britain's sportsmen should continue to take on the world's sportsman with one arm tied behind their backs. Society should not provide less for the development of those whose talents are sporting than for those whose talents are academic."

"Accordingly, the Government is looking into means of diverting resources to those who are gifted in sport," the White Paper says. "A particular study is being made of the possibility of developing centres of sporting excellence at universities and other colleges which would also provide for the general educational needs of selected young athletes."

Universities and colleges had already shown a phenomenal interest in the proposals, Mr Howell said. The White Paper emphasizes that any proposals would have to be discussed with the institutions or other bodies, and points out that the Government does not interfere in matters affecting the admissions policies or curricula of educational institutions.

He envisaged 20 to 30 centres around the



Alan Pascoe: will the next generation of athletes all hold degrees?

country, with specialist facilities available at some universities, for instance, Birmingham. A spokesman from Birmingham University said: "We welcome the idea. Already we provide this to some extent and top athletes from Birmingham and the Midlands come here."

The centres would be used both by sportsmen and people living in the nearby areas. "It is wrong if good and expensive facilities are under-used. In a period of financial restraint, in particular, it is important to ensure that the maximum use is made by the community of facilities already available," the White Paper says.

The sportsmen would live in the centres in

order to make full use of their facilities, Mr Howell said. Their living expenses could be paid for by bursaries from commercial firms. The bursary scheme might help to level the ground by the end of the year, he said.

The French Government is currently considering a Bill which aims at encouraging young people to do sport and help improve France's poor record in international sporting events. The Bill advocates that a two-year diploma course in physical education and sport be offered at selected universities. A third of the course would be spent on sport. Modern languages would be a compulsory element (THES, May 30).

Bath v-c to retire early

by Alan Cone

Dr Leonard Rotherham, vice-chancellor of Bath University since 1965, has decided to retire at the end of next year, three years earlier than planned.

In a letter to Dr E. L. Harbart, chairman of the university council, Dr Rotherham explained: "There is now bound to be a period of consolidation of the plans which have already been agreed. I am therefore resigning my post as vice-chancellor, and it seems a good opportunity for my successor to be appointed, so that he may look forward and plan the period of future growth which will be well on in the 1980s."

Dr Rotherham, who will be 62 at the end of the month, said this week that he was sorry to be leaving but as the development of the university would be comparatively slow in the next few years—especially due to a lack of money for new buildings—it was a good opportunity to retire.

He dismissed suggestions that his retirement had been hastened by political disillusionment, although he is disappointed that the university has not developed as rapidly as he had hoped.

He said: "I take no pride in having the lowest unit cost in the country: quite the reverse." He wanted the university to operate efficiently, economically but using adequate resources to achieve its objectives.

"We are not yet competitive with the older universities," he argued, going on to emphasize that Bath was not trying to compete directly with orthodox universities.

Dr Rotherham, a physicist, worked in industry for many years and was head of research for the Electrical Supply Board, Industry and Electricity Council before his appointment at Bath.

Asked what he considered to have been his achievements at Bath, Dr Rotherham pointed to the support from his academic and administrative staff in recent years when financial stringency has meant increased workloads. He said: "I doubt whether any vice-chancellor in Britain has had more positive support from his staff than I have. There is a very fine corporate spirit here."

The university has a year to find a successor although Dr Rotherham has made it clear he will vary the dates of his departure to suit the university. Although Bath has had very little so far to congratulate itself on, Dr Rotherham said, he believed the students' enthusiasm was the chief factor in the declining popularity of the job of

OU changing to colour

A grant of £600,000 has been allocated to the Open University to enable it to convert its television transmission from black and white to colour, according to the annual report of the Department of Education and Science for 1974 published last week.

The conversion, which was completed at the OU studios at Aldenham Palace in April, means that all OU programmes will eventually be transmitted in colour, although at present many programmes made in black and white before April are still in use. About 55 per cent of OU students have colour television, it is estimated.

Mr Peter Dunkley, editor of the OU/BBC arts broadcasting, said: "The equipment was two years old, and we had to decide whether, in view of the proposed move of the studios to Milton Keynes, to carry on with the monochrome equipment or to replace it with colour television."

A strong argument for the change is the marketing potential of OU programmes. Mr Dunkley said: "No one wants to buy black and white television programmes. We have made the OU films in colour since 1971 because an educational institution wants to show black and white films."

Reasons for the change from the technical point of view were put by Mr Philip Hloobcliffe, assistant senior engineer for the OU/BBC programmes. "As engineers, we wanted to work in a professional medium, and one which is recognized throughout the world, and that is colour television," he said.

Monochrome equipment was becoming less available and more expensive, Mr Dunkley added. "In addition, the average life of a television camera was only about 10 years."

The grant covered the cost of a new outside broadcast unit (which converted to colour in January) and the new equipment in the studios. This included eight colour cameras, lights, control and other units, conversion of a telecine machine and video tape machines, and purchase of a colour television monitor.

Not all the grant was used, Mr Dunkley pointed out. "We converted to colour in January, but because we used new British equipment, which is considerably cheaper."

The OU currently transmits about 30 hours of television programmes

Only £150,000 will buy one top engineering department

by Brian MacArthur

Staff at one of Britain's scientific centres of excellence have put themselves up for sale—and only a few of them are joking.

They are from the Control Systems Centre at the University of Manchester Institute of Science and Technology, one of the four centres of excellence in control systems, which are especially supported by the Science Research Council. (The others are Cambridge, Imperial College, London, and a consortium of Sussex, Warwick and University College, Bangor.)

Senior Lecturer Dr G. C. Berney cast the following letter last week to THE THES:

"My colleagues and I are very concerned over the serious state of university finance, both salaries and resources. To highlight this deterioration, I enclose a letter, which you might care to publish on behalf of my colleagues and me. It is in the form of an advertisement to give a tragedy-comedy note."

The "advertisement" is published below.

Dr Barney said last week: "If on attractive offer was made, say from Australia or New Zealand, we might very well say 'Yes, we will go'. We work 60 hours a week, take three or four weeks holiday but now we are beginning to say 'Why not get out and enjoy ourselves?'"

He added that the salaries of professional chartered engineers had traditionally been 10 per cent lower than in industry or government establishments but many had chosen university work because of the lack of restrictions and the opportunity for teaching and research.

Yet now that the Government was cutting back budgets, staff at the UMIST were being replaced on the basis of appointing only one for every three who left.

There were 32 students on the one-year MSc course taught by the Controls System Centre. Some 40 per cent were British and the others mainly from countries in the Middle East, South America and Greece.

FOR SALE

Offers are invited for

A DEPARTMENT OF CONTROL ENGINEERING

comprising one distinguished Professor 21 Senior Lecturers and 71 Lecturers with wide experience and competent skills in all branches of control theory applications and practice. Areas of principal interest: classical, multi-variable, optimal, adaptive, stochastic and computer control. The group would require suitable office, laboratory and teaching accommodation, together with support staff and an interactive computer facility.

Applications should come from Governments and Universities who are fully committed to the worth of university research and teaching and a respect for the professional engineer in society. An acceptable country would be a democracy having an equitable climate with pleasant and hardworking people.

USS or similar superannuation scheme should be available. Anticipated stipends, at present exchange rates, would be:

Professor +15,000 +20,000

Senior Lecturer +12,500 +16,000

Lecturer + 8,000 +12,000

12 copies of all applications should be submitted by 31st August, 1975, and appointments would commence 1st October, 1975.

Yours faithfully,
Box No. 21/13/19/30.

Vaizey to head Australian university

Professor John Vaizey of Brunel University is to leave Britain to become vice-chancellor of Monash University in Australia.

Professor Vaizey, 45, is head of the school of social sciences at Brunel and well known as a broadcaster, novelist and columnist. He was one of the founders of the economics of education as an area of serious study in Britain with the publication of his book *The Economics of Education* in 1962.

Monash University, in Melbourne, was founded in 1958 and has nearly 14,000 students with strong schools of medicine, law, engineering and education. Professor Vaizey, who succeeds Dr J. A. L. Matheson, will take up his post in 1976.

Professor Vaizey, a regular contributor to *The THES*, has been a firm supporter of the continuing expansion of higher education in Britain. "A recent interest of his has been inequality in society; so he is now working on a major study after last year coining a successful series of programmes on BBC Radio Three entitled 'What's ever happened to equality?'"

Professor Jack Lewis, professor of climatology at Cambridge University, has been appointed the first warden of Robinson College, which is being founded by a £10m gift from Mr David Robinson, a Newmarket racehorse owner.

Professor Lewis said this week that he was excited at the prospect of being in charge of the first co-educational college at Cambridge and hoped it would become one of the great Cambridge colleges. He has held the chair of chemistry at Cambridge since 1970.

Work on the new college buildings will start during the first half of 1977 and the first undergraduate will take up residence in October 1979. Some graduate students may be admitted before that date.

Scholars welcome library decision

by David Walker

The new reference division of the British Library is to be built adjacent to St Pancras Station in London, Mr Hugh Jenkins, Minister for the Environment, announced last week. An architect will soon be asked by the Department of the Environment to begin design studies for the buildings which will house the collection of books and manuscripts at present in the former British Museum Library in Bloomsbury and the other phase completed by 1985.

Scholars this week welcomed the decision which would guarantee the British Library's reference collections being gathered together on one site, with reservations about the separation of books in the library and the collection of exhibits in the British Museum.

Professor H. S. Smith, a leading Egyptologist of University College, London, said: "What most of us feel is relief that the site has finally been settled in London and that there will be adequate premises for 'stocks of books' in store to make them more available than at present."

The Government announced that in conjunction with the British Library Board it was satisfied the site in Somers Town off Euston Road would provide for the library's building needs. Building would start in 1979-80 if economic conditions permitted, it said.

The decision represents something of a volte face for Lord Eccles, chairman of the British Library Board, who six months ago complained that the site would mean books would have to be "crated somewhere in North London". In fact the site is barely a mile from the British Museum.

Scholars said that delays in getting books were becoming so great at the library that the previously deplored separation of books and museum exhibits would have less importance.

A Tudor historian said what mattered to him more was the fact that the collection of documents in the Public Records Office was being dispersed.

When the new library is fully completed, it will house all the collections of the British Library.

NOTICE BOARD

Appointments

Universities

Birmingham
Head of department: Jocelyn B. Howell (literature and theatre arts).

Keele
Further fellow: T. R. Anley (David Bruce Centre). Administrative assistant: J. D. Plackett (Institute of Education). Senior lecturer: A. Laksner (sociology). Organizing lecturer:

Forthcoming events

The Third International Child Language Symposium, sponsored by the International Association for the Study of Child Language, will be held from September 3-5 at the School of Oriental and African Studies, Malet Street, London WC1E 7HU. The function of the symposium is to promote the systematic study of child language and foster international and interdisciplinary cooperation in research. Topics include: pre-school communication, the development of syntax, semantics and phonology. Further information from: Mrs. Natalie Watson, chairman, organising committee, department of phonetics and linguistics, SOAS, Malet Street, London WC1E 7HU.

A conference on Heavy Mixed Concrete, organized by the Department of Civil Engineering in Dundee University, will be held from September 28-October 1. Further details from: The conference convenor, Dr R. K. Blair, civil engineering department, University of Dundee, DD1 4HN.

The 70th Anniversary Conference of the Horticultural Education Association on Crop Protection will be held from September 8-12 at the University of Reading. The aim is to bring together standing up to date with the latest techniques, to present the latest views on harmful effects on the environment.

Grants

Universities

Bristol
Physiology—£2,541 from the MRC towards an investigation into the role of amino acid receptors in the central nervous system and their relation to drug action.

Cardiff
Physiology—£24,741 from the MRC towards a project on anatomical and electrophysiological investigations of afferents to the inferior olivary nucleus in the cat.

Cardiff
Physiology—£19,651 from the MRC towards an investigation on a study of the cell responses and the virus in latent and recurrent herpes simplex infection. Physics—£16,746 from the SRC as a supplementary grant towards an investigation on heavy primary experiment on UK-6.

Cardiff
Biochemistry—£14,172 from the MRC towards an investigation on macromolecular synthesis in rat liver and adipose tissue and liver. Physics—£14,700 (supplementary) from the SRC towards an investigation on the theory of electronic properties of disordered systems.

Durham
£20,548 from the Department of Environment towards an investigation on environmental processing, under the direction of Professor R. Cramp; £13,330 from the European Economic Community for research into the effects of zinc and lead pollution of vegetation in flowing waters, under the direction of Dr B. A. Whitton; £12,000 from the Paul Instrument Fund for the construction of an X-ray camera for magnetron measurements, under the direction of Dr W. D. Connor and Dr B. A. Whitton; £10,320 from the MRC for an investigation into the development of the kidney duct, under the direction of Dr R. E. Long; £1,200 (supplementary) from the SRC for the construction of a laboratory towards an investigation into the application of neutron activation analysis to the study of the effects of radiation on the growth of food crops, under the direction of Dr D. J. Shepherd.

Sheffield
Centre for Environmental Research—£5,662 from the SRC for a research project on monitoring the structure and function of the atmosphere in the Metropolitan County, under the direction of Mr R. A. Barker.

Stirling
Aquatic pathology—£10,000 from the Shell International Chemical Co. Ltd for a post-doctoral research fellowship on the health and growth of trout under various conditions of stocking rate and disease status under the direction of Dr C. J. Shepherd.

Sussex
Science policy research unit—£4,839 from the SRC for research into attitudes to change in technology and work structure in the engineering industry.

Yates
Ealing Technical College
School of Business and Social Studies—£5,982 from the SRC towards an investigation into patterns of food consumption in Britain 1914-1940, under the direction of Dr D. J. Oddy.

Oxford
Experimental psychology—£5,030 from the SRC for research into the school child's understanding of some basic concepts of number; £1,197 from the SRC for a study into the sex differences in psychological responses in children under the direction of Dr J. Gray and Dr U. Fairweather; £2,086 from the SRC for research into the effects of social and cultural factors on the development of polytechnic teachers, under the direction of Dr A. H. Halsey.

Polytechnics

Plymouth
Principal lecturers: S. Broadhurst (electrical engineering); H. G. O. Rowett (educational technology); Captain W. V. Day (aviation); C. A. Rich (transport); S. J. Egglestone (microbiology); F. Johnson (ecology); B. S. Watley (statistics and operational research).

and to consider the economics of crop protection. Further details from: The conference secretary, Mr W. R. Buckle, department of agriculture and horticulture, The University, Barley Gate, Reading RG6 2AT.

Kingston Polytechnic and North London Polytechnic together with Michael Brown, landscape architect of Richmond, Surrey, are co-operating in a series of five landscape design seminars to be held at Cumberland Lodge, Windsor Great Park, from October 1975 to January 1976. The first five are designed for all those who involve dealing with land and natural resources. The introductory series will deal with the work of the landscape architect. For each seminar, a booklet form and programme details from: Graham Bennett, division of human environment, Kingston Polytechnic, Kingston Park, Kingston upon Thames KT1 2UJ, Surrey.

The department for external studies, University of Oxford, is holding a weekend conference on 'The Beginnings of Urbanism in Barbarian Europe' from October 10-11, 1975, at Revley House, Wellington Square, Oxford. Applications from: The Director, Oxford University Department for External Studies, Revley House, Wellington Square, Oxford OX1 2JG. Full shared residential £19; £23 single. Non-residential with meals £12.50; non-residential without meals, £7.

social organization and symbolism on Sumatra, Eastern Indonesia, under the direction of Dr R. Needham.

Salford
Chemical engineering—£5,916 from the SRC for research into an investigation on experimental study of fixed bed catalytic reactor, under the direction of Dr R. Hughes.

Sheffield
Mechanical engineering—£6,875 from the SRC for continuing research on fuel technology and engine design for diesel engines, under the direction of Mr B. Fogg and Dr T. R. Cressley. £6,279 from the Ministry of Defence for research into ion plated coatings on titanium for protection against galvanic corrosion and wear, under the direction of Mr D. G. Teer.

Sheffield
£11,650 from the SRC for continuing research into the investigation of the influence of component design and process capability on manufacturing costs with reference to general cost systems, under the direction of Professor A. W. J. Chisholm and Mr B. Fogg.

Sheffield
Electrical engineering—£1,445 from the Atomic Energy Research Establishment towards a research on ion beam studies, under the direction of Professor G. Carter.

Sheffield
Centre for Environmental Research—£5,662 from the SRC for a research project on monitoring the structure and function of the atmosphere in the Metropolitan County, under the direction of Mr R. A. Barker.

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Chairs

Professor M. A. M. Roberie, professor of English and head of the department of English at Queen's University, Belfast, has been appointed professor of English and head of the department of English, University of Keele, from October 1.

Dr Peter Jarrett, at present director of the computing laboratory in the University of Bedford, has been appointed to the chair of computing and director of the computer centre in the University of Birmingham from October 1.

Professor Raymond A. Cunningham-Green, at present professor of management mathematics at Twente University of Technology, Holland, has been appointed to the chair of industrial mathematics in the department of mathematical statistics, University of Birmingham, from January 1.

Honorary degrees

Loughborough
DTEch—Professor E. J. Richards, vice-chancellor of the University of Loughborough; Sir John Devle, chairman of the Bank of England; Professor Sir Sam Pitman, Plummer professor of physics at Cambridge University and chairman of the Science Research Council; Dr N. A. Burgess, vice-chancellor, New University of Ulster.

Manchester
MA—Sir Butterworth E. W. Fox, The Reverend R. D. Hellingrath, M. Kennedy, Dr Hans-Peter Kruger and honorary squireman M. G. Lord.

Salford
DSc—Sir John Llewellyn, director-general, British Council; Dame Kathleen Ollenschlaeger, lord mayor of the city of Manchester.

Sheffield
DSc—Mrs Constance Paterson, president, CUC; Sir Arnold Watkinson, managing director, General Electric Company; MA—Councillor Harold Singleton, former mayor of the city of Salford; Dr Joseph Needham, master of Gonville and Caius College, Cambridge; L. S. Lowry, artist.

Sheffield
DSc—Dr J. H. Chesters, chairman of the University of Sheffield's advisory committee on chemical engineering and fuel technology and economic lecturer in industrial research in the department of chemical engineering and fuel technology.

Sheffield
LittD—Dr G. Cullen (architectural), Dr Hon. Lord Armstrong of Sandhurst, chairman of the Midlands Bank Group.

Sussex
LittD—Sir Michael Bakon, retired film producer; Dr B. W. H. Brimley, director of the London Education Authority; Rt Rev. R. A. Reeves, formerly Bishop of Johannesburg, president, Anti-Apartheid Movement; Dame Hilda de Valois, governor of the Royal Ballet.

Sussex
DSc—Professor Jacques Heyma, professor of engineering, University of Cambridge.

Stirling
The Edmund G. Gardner Prize, in the field of Italian studies, has been awarded to Michael Baxandall, reader in the history of classical tradition in the Warburg Institute.

The J. U. Robertson Prize, in the field of Germanic studies, has been awarded to Professor William Edgar Yates, University of Exeter.

The Burdett Coutts Prize 1975 has been awarded to: Bruce Kevin Levell, St Catherine's College.

Recent publications
British Image 1 is the first issue of a periodical published by the Arts Council of Great Britain to appear bi-monthly which will contain work of contemporary photographers who have successfully completed projects supported by Arts Council photography awards. Available from Arts Council Shop, 28 Seckville Street, London W1X 1DA, £2.00.

We regret that owing to shortage of space the Open University programmes are not published this week.

Noticeboard is compiled

The largest-ever conference of international university leaders starts in Moscow on Tuesday. A special correspondent previews it.

IAU considers innovation and social development

From Tuesday, following a decision taken five years ago at the fifth general conference of the International Association of Universities (IAU) in Moscow, the university of Moscow will host the largest international assembly of university leaders ever held.

The IAU was founded in 1950 in Nice, and the Moscow Conference will mark its twenty-fifth anniversary. It is still very young compared with some of its member universities, with their long centuries of existence, but history has been moving very fast for universities since 1950.

Three periods at least may be picked out in this short span of time. First, there was that of uneasy recovery from the devastation of the Second World War, with the threat of a new war overshadowing it. This was when IAU was founded, with a largely western membership. Then came the period of rapid university expansion, partly due to the political competition between the various blocs, which marked the Cold War, but which also coincided with a gradual thawing up of the international atmosphere.

These developments greatly helped the growth of the IAU, and membership increased in the emerging countries of the Third World and in the socialist countries.

This was abruptly ended in the third period, when the figurative explosion turned into real ones on many campuses and in the streets of many big cities. For some parts of the world, the student revolts ushered in a time of intellectual uncertainty, of social crisis, and of financial stringency—in which a majority of universities are now living. And these might well have brought on a similar crisis for the international association.

The fact is that they have not done so. But despite their growing internal difficulties, the majority of universities have not retreated into isolation. On the contrary, there are many signs that they feel the need for more international cooperation. Membership of IAU is due indication of this. It was hoped originally that it would have 200 members. At the beginning of 1975, there were 600 in 108 countries, and there will be nearly 700—and over a thousand university figures taking part.

Doubtless the interest of visiting Moscow, accounts partly for this large attendance, but it is certain that those in charge of university administration and development all over the world feel a need to exchange opinions about the future of their institutions and the difficulties which affect all planning today.

Under the general title: Higher Education at the Approach of the Twenty-first Century, the conference will discuss two themes: Higher Education and Problems of Economic and Social Development and Universities and Innovations within Higher Education.

The IAU conference in Moscow will not solve any of these problems. But it will bring together very diverse attitudes and attitudes and may give impetus to new currents of thought.

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Korea

Degrees of marriage

From our Correspondent

A father of three holding a top banking position in Seoul-admits he goes out drinking in hostess bars nearly every night. His wife is told it is part of his job, and passively accepts it. Yet she is a fully qualified teacher with a degree.

"Here in Korea a degree is a marital and not an academic qualification," I was told. It is not dissimilar to the *tankei doigoku* (junior colleges) in Japan, who run two-year courses, and are similar to finishing schools which aim to make girls marriageable.

In Seoul there are 37 universities, many run on American lines. The large number grew after the Korean War, when businessmen built their own private institutions of higher learning, because at the time conscription was deferred or reduced if the man was a graduate.

Seoul's Ewha women's university, founded in 1886, is the largest establishment of its kind in the east. Girls who attend Ewha come from middle and upper class families and their problem is that they cannot hold jobs after marriage. Recent statistics show that only one-third of women graduates work and most private organizations, such as banks, ask them to leave when they marry.

There is a constant drop in the number of working women after the age of 25. After marriage many women lose interest in their jobs, for in Korean family life children are essential. The status of mother is more venerated than that of wife, and if a wife bears no offspring there will be considerable pressure to do so.

The average number of children is three, so that mothers begin to have more time in their early thirties. In the last few years, some of them have gone back to their studies, but few employers are willing to give them a job.

Angela Chung is one of the few exceptions. Married to a university lecturer, she went to the best girls' high school and the prestigious Seoul National University. Shortly after her marriage she accompanied her husband to Manchester University, where they lived on and off for 10 years.

Now she teaches in an American school, employing a full time maid at £10 a month and after the boys, she does her high school friends and fellow graduates have been out of the country, and they will still spend most of their lives waiting until their menfolk.

In the eyes of many of the teachers, the wife already has a status in the public imagination. They do not like to see a woman who has been educated, but who is not working, and they do not like to see a woman who is not working, but who is not educated.

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Women in higher education: reports from THES correspondents abroad



Girls have longer courses—but get the worst jobs

From our Correspondent
Girls stay longer at school than boys and do better in examinations—but the courses they most of them follow lead to the least interesting, least well paid, and least responsible jobs, according to an analysis of current statistics and research recently published in the monthly *Le Monde de l'Education*.

It says that girls have equal access to institutions at all levels, but that the length and type of their schooling is still conditioned by social customs and attitudes which in fact still deny them equality. In the teaching profession, for example, there are more women—but mainly at the lower levels.

Girls and boys who go to nursery schools. At primary level, parents tend to send daughters rather than sons to private schools, many of them Catholic, and many of them for girls only.

During secondary education the proportions of girls and boys are roughly equal, but more girls than boys stay on until 19.

For example, 72 per cent of daughters of skilled workers stay on after 16 compared with 59 per cent of sons. This is because it is easier for boys to find work at that age, and because they can become apprentices.

Girls and boys who do stay on also study different subjects. Girls take courses like literature, languages or the arts which have less standing, and less definite career openings.

The guidelines say that, in descriptions of women, a patronizing tone should be avoided. Women should not be treated as sex objects or portrayed as weak, helpless and hysterical, or made figures of fun or objects of scorn.

Daring and innovative women in history and fiction should be treated fully, and leaders in the fight for women's rights should be admired and respected rather than mocked or ignored. Sometimes men should be shown as quiet and passive, or fearful and indecisive, or hostile and insensitive. Similarly, the women should sometimes be shown as tough, aggressive and insensitive.

The section on language suggests that the generic pronoun "he" should be avoided wherever possible by substituting the plural form, or alternatively "she" and "she" or by using the symbol s/he.

Teachers should point out any sexist bias to their pupils. They should also point out any sexist bias to their pupils.

Sweden

Report suggests creating 'watch dog' committees

from Mike Duckenfield

STOCKHOLM

The creation of special committees which would monitor the career prospects of women in higher education is one of several ways of tackling inequality between the sexes suggested in a recent report published to coincide with International Women's Year.

University faculties and college departments could report to one of these committees within each institution on whether they are employing more women, says the 48-page discussion document published by the Office of the Chancellor of the Swedish Universities (UKA). Sweden's central planning body for higher education.

Karin Westman Bera, a lecturer at Uppsala University and one of four women contributors in the report, argues that women are discriminated against in higher education as much as in many other professions.

She suggests that women should be represented on all appointment boards in higher education, that universities and colleges should run pre-schools for the children of staff, and that a monitoring committee should be set up.

There are still major differences between the sexes over graduation prospects and the

chances of doing research, says the report. The authors cite a follow-up study of students graduating in spring 1973. In January last year, 42 per cent of the male graduates had monthly incomes above 3,500 Skr (£300), compared with only 23 per cent of their female counterparts; 22 per cent of the men earned more than 4,000 Skr (£440) a month, against only 6 per cent of the women.

The report says that only 50 of the 1,400 members of the Swedish lawyers' union are women, although in the last ten years between one-fifth and one-third of all university law students were women.

The report supports the idea of a six-hour working day based on flexible hours. The authors point out that the higher in education one aspires the less chance there is of success for women. In eight faculties in Sweden's six universities, the authors claim that 33 per cent of undergraduates were women as opposed to only 18 per cent of post-graduates.

Nevertheless the report shows that the number of women gaining entry to some university courses has increased significantly in the last decade. There are 35 per cent studying medicine and 35 per cent studying chemistry, 34 per cent studying architecture, and 11 per cent studying technology.

United States
Women's studies programmes 'must improve their status'

from Frances Hill

NEW YORK
Political activism, generally believed to have died since the 1960s, still thrives in one arena—that of women's rights.

According to Florence Howe, of the State University of New York, by an introduction to a Carnegie Commission collection of essays on women in higher education, there have been attempts to get child care facilities, centres of relaxation, counselling and research, and programmes of women's studies. On a campus, women have set in for their demands and campus festivals, conferences and lecture schedules have been dominated by women.

But despite this, radical changes will have to be made if women are to gain real equality of opportunity, agree the four authors of *Women and the Power Change*.

A man can build a reputation while young by minimizing family life. But women normally bear and raise children at precisely the time when they need to compete for future success.

Even if there was no discrimination, and women were free of pressures to avoid success and authority, says Arlie Russell.

Held at the University of California, Berkeley, only a handful of women would reach the top of the academic profession anyway. It demanded total commitment at a time of life when they could not possibly give it.

Adrienne Rich, a poet and professor of English at the City University of New York, argues for university child-care centres available for children of all students, staff and faculty members. "There would be a conscious counterweight against the sex-role programming of patriarchal society," she writes.

The authors agree that programmes of women's studies must improve their status if they were to affect men's attitudes towards women and women's attitudes to themselves. Content must be changed to portray the place and achievements of women in history, science and literature.

Women and the Power to Change, Edited by Florence Howe, Sponsored by the Carnegie Commission on Higher Education, McGraw-Hill, \$7.95.

New Zealand

Our male colleagues are patronizing, say female staff

from Brian Priesley

CHRISTCHURCH
Women staff members of Victoria University often resent the condescending and patronizing treatment they feel they receive from male colleagues, according to a committee which has spent a year looking into the status of women at the university.

The committee's suggestions include: An association of women staff members, which would act as a pressure group and "provide support for female staff members in the predominantly male environment".

Shared or half-time appointments. Academic positions should be negotiable on full-time, half-time, or part-time, and should be advertised as such. New categories of permanent positions might be introduced to cater especially for women's needs.

At least one woman member of any appointment committee if there are any women applicants.

The committee found the median age of women lecturers and senior lecturers was 40 years, compared with 32 years for men. Women were appointed at a much older age, and spent six to eight years as junior lecturers.

This has lent credibility to the



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An injustice on salaries

Although it is still subject to negotiations, the Government has now made its salary offer to university teachers for October, 1975. Whatever the merits of the arguments put forward by the University Authorities Panel, it is unlikely in the present circumstances that it will be significantly increased.

An attempt can therefore be made to assess what has happened to salaries in universities, colleges and polytechnics since the Houghton Report was published last December. So much unprecedented anger and controversy has been aroused since the Houghton Report that it is important that the assessment should be neutral and that public opinion should be taken into account.

The major point is that the Government has achieved its aim of securing broad comparability for salary scales in universities and polytechnics. Salaries in colleges and polytechnics have increased by nearly 50 per cent since January, have been backdated to May, 1974, and have been paid.

Against this, university salaries have risen by a comparable period by 8 per cent, will rise in October by about 25 per cent to 30 per cent, and on the Houghton criterion a year's enhanced salary has been lost, since there has been no backdating. Each university teacher has therefore been robbed of at least £1,000 in gross salary forgoing to the cause of Mr Prentice's lonely defence of the Social Contract or because of the doubtful wisdom, in retrospect, of setting so quickly for 8 per cent last October.

If the present offer to universities stands, an annual 8 per cent increase will have been established, with the career scale in polytechnics going from £3,279 to £5,417 compared with the university career scale of £3,747 to £5,446 and with top "teaching" salaries of £7,578 in polytechnics and £7,742 in universities.

As if this was not enough even for the university teachers' most sympathetic to the claims of the polytechnics to stomach, civil servants or senior local government officers, whose jobs and salaries flourish unchecked while the nation

they administer founders, have missed ahead of the universities. A high-flying civil servant who becomes a principal at 29 or 30 is earning £5,640, compared with a likely university salary of around £4,000. In his mid-30s, the high-flying civil servant, as assistant secretary, will be on £8,650, while the few young professors in the slow-growth academic profession will be on £8,000 and their maximum steps at around £10,000, compared with the assistant secretary's £11,000.

Any neutral inquiry, however, would be likely to support the Civil Service's advantage. Civil servants, admittedly, do not have to cope with such pressures as sitting in students or examination marking or the strenuous life of research. Yet there is no doubting the outstanding quality of many senior civil servants, their enormous and taxing responsibilities, or their hours of work, especially when set against the freedom of university life. It will also damage university teachers if they seem to be too dissatisfied with salary rises of between £20 and £40 a week.

The Association of University Teachers is therefore confronted with some awkward judgments in the autumn term. It has two strong arguments. One is that university salaries ought to be higher than those of polytechnics in recognition of their greater level of advanced teaching and research and to be frank, of their harder work loads.

The second is the strongest. This is the simple injustice, in defiance of the White Paper on the Battle Against Inflation, of the decision not to meet the award proposed by the teachers' union when the White Paper specifically stated that awards from arbitration should be met so long as they were referred before the White Paper was published.

University salaries were not only referred to arbitration before the White Paper but the tribunal reported before it was published. On this, the university case is undeniable and it is difficult to resist the conclusion that the Government would not mete out such shabby treatment to unions representing manual workers or civil servants.

Integration red herring

from Dr W. Stokes

Sir, "The latest effusion on the vexed question of 'integrating' different academic disciplines is neither what it appears to be, nor even what its headline proclaims it to be (Jeffrey Johnson, *THES*, July 18). It starts from the generally acceptable premise that those who use the word 'integration' do not pause to define it, and shows that even the Council for National Academic Awards, in giving its blessing to the integration of language and the social sciences as a genre, is guilty of imprecision about the nature of that integration. The question of integration is of peculiar importance to language teachers since language by its nature is sterile without subject matter.

Based partly on the text of the CNAA paper on planning language degree courses, the article seeks a definition for 'integration', appropriate to the type of course envisaged by the CNAA. A 'combination of (imperfect) things by addition of parts; combining parts into a whole', says the Concise Oxford English Dictionary, a definition tailor-made for the combination of language with subject matter, it would seem.

But no—Dr Johnson's article separates the two phrases and, on the shaky basis of the whole, reflecting some sort of ideological view, labels 'integration' as 'red' under the CNAA 'bed'. Most courses, well the old 'lang-

uage' courses are less than in some other subjects, have long been used as the passport to the study of a society not one's own—in the past at second-hand, through its literary artefacts, but now, increasingly, at first hand, from within, and with the analytical tools of the social sciences.

It is difficult to see how, with a combination of disciplines, so analytically based as say—political science, sociology, economics—a student can spend any time living in and studying a society without coming to his/her own conclusions. It is equally difficult to see how such an approach could lead to 'a stale, unchanging presentation of received knowledge'.

Any course is composed of both staff and students. Any course offering a combination of disciplines offers a diversity of approaches and an equivalent diversity of responses. It is extremely unlikely that such a course could 'negate the sort of ideological identity that could be used for political ends'.

Dr Johnson gives scant attention to the much more interesting questions of the practicality of combining different disciplines and the machinery for maintaining the theoretical levels in each of them.

There is no doubt that the threat of political manipulation in higher education exists, but much more in the relationship between 'resources allocation and course content' than in the definition of 'integration'. The day may come when he who says the pipe is 'when he who says the pipe is

LETTERS TO THE EDITOR

Salaries after Houghton—Part 30

from Dr Trevor Marshall

Sir—Your article on university salaries (*THES*, August 1) states that it is the policy of the Association of University Teachers to "smash Houghton". I would challenge you to find any evidence that there is such a policy, either in reason or in statement by AUT council or in any statement by AUT officer. We have never considered the increases awarded by Houghton to non-university teachers anything other than well deserved and long overdue.

The comparability which Houghton sought to establish was between university and non-university teachers doing degree-level teaching in their own right. Houghton used the level of university salaries as they should have been to April, 1974. Mr Prentice refused to allow this same yardstick to be applied to university teachers in October, 1974, because they were not included in Houghton's terms of reference. So other groups may be compared with us but we may not be compared with ourselves.

The net result is that, if we were to accept the 75 offer, the university lecturer grade at this time would be as low as the level of the combined lecturer II/senior lecturer grade in further education (Your correspondent has made the elementary mistake of equating 'lecturer' in the two career structures, and therefore simply cannot have read Houghton.)

If our members do accept the 75 offer, it will not be as you suggest because we have 'smashed Houghton', but rather because they think that the success of the Government's pay policy is more important than the correcting of our own injustice, grant this is a possibility, but would not myself give it much of a chance.

We have, during my working life, been chosen three times to be the group on which a basic pay increase was first tried out—Selwyn Lloyd's Pay Pause 1962, Prices and Incomes Board 1968 and Social Contract (mark Prentice) 1974. In each case the policy failed but we remained pegged. Now we are expected to act as whipping boys a fourth time.

We must be the only group which has gone from the statutory policy of the Government to that of the Labour Government without the benefit of the Social Contract (mark TUC) in between. So, rather than making rash predictions about the AUT's response to the 75, as your correspondent does, I suggest you wait for the decisions of our emergency council.

Yours faithfully,
TREVOR MARSHALL (national executive, AUT),
University of Manchester.

from Professor Peter Tiley
Sir—It seems very sad that all the bitterness engendered by the university salary issue is likely to continue for many months unless the Department of Education and Science and others (including yourself, Sir?) are prepared to accept the independent findings of the arbitration tribunal on university pay. Let us examine the facts.

For the 1975 salary award, the AUT Council accepted, not without reluctance, the proposal of Reg Prentice that it should be based on the Houghton principle of

"broad parity" between university teachers and further education teachers on similar work.

The quantitative interpretation of "broad parity" was established by the arbitration tribunal who concluded that because of stricter probationary requirements, longer incremental scales and so on, the university lecturer at the top of the scale should have roughly 9 per cent more than his further education counterpart, with corresponding differentials on higher grades. The AUT had argued for much bigger differences, but the tribunal listened to all the arguments and made its independent decision.

The Government White Paper has, for the moment, blighted the hopes of securing full justice for the university claim, but at least the White Paper directed that all arbitration awards should be implemented. It is therefore not surprising that the AUT expected the current Secretary of State to honour the obligations of his predecessor and to offer October 1975 scales for universities which, relative to April 1975 FE scale, would be at least as favourable as the arbitration award.

It came as an incredible shock to us in AUT that the DES have made an offer which effectively nullifies the findings of the arbitration award. Such a breach of good faith is surely unprecedented in public service. How many times must the AUT resort to independent arbitration to obtain a minimum of justice when all other comparable groups have been treated so generously?

Yours faithfully,
PETER TILLEY,
Vice-president (past president),
Association of University Teachers.

from Mr John Radford

Sir—So the Houghton principle of comparability for university and polytechnic staff is "smashed". It did not last long; but the universities are still screaming for "justice".

This department, Sir, has three separate honours, degrees in psychology. It has taught masters courses in the two largest areas of professional psychology—educational and clinical. It has research students preparing for MPhil or PhD. It has 34 academic staff. No-one, I suppose, would suggest that their qualifications, their experience, their ability, their standard of work are not comparable with those of the better universities. Yet at almost every point they will be paid less than their university counterparts. I wish, I wish, that someone would explain to them the justice and the logic of this, for I cannot.

In the false dawn of Houghton I thought optimistically that we might at last see real equality of opportunity for both staff and students even within the fundamentally inequitable binary system. It seems to me odd that many of those who condemn an unjust tripartite system of secondary education are equally vehement in maintaining a dual system at the next level.

Yours faithfully,
JOHN RADFORD,
Dean of the Faculty of Human Sciences,
North East London Polytechnic.

Bradford's federal college

from Mr D. V. Wheatley

Sir—I note with interest (*THES*, August 1) the heading "Pioneer federal plan approved". The article suggests that a new federal voluntary institution and that the government has agreed to more contribute constitutional proposals than it had in the past.

May I remind you that the City of Bradford Metropolitan District Council was asked by the Secretary of State in October 1974, in the letter of approval of the proposal. You may recall that this proposal recognises the inter-relationship of all further and higher education.

The five colleges (Bingley and

Margaret McMillan and the College of Art and Technology), and Kellogg's Shipley (further education) all have representatives on the Standing Academic Planning Board. This has a formal standing in the authority's scheme of further and higher education, has representatives from the Inspectorate, the Regional Advisory Council and this division and is serviced by a full-time academic planning officer and clerical staff.

There is considerably more detail of course, to the scheme and we are in the process of preparing a more detailed statement of progress to date and an indication of future developments.

Yours faithfully,
D. V. WHEATLEY,
Chief Further Education Officer.

Manpower

from Professor S. E. Hunt

Sir—I have been a vociferous and occasionally violent critic of Lord Criviter-Hunt's views for longer than most. It really started through the joint ownership of a trilogy almost 50 years ago, but he must be right in his plea for a greater degree of manpower planning. This is particularly true of the thesis that if we do err in this, as we inevitably shall, it should be to wards producing too many scientists and engineers rather than too few.

The converse has been the case for too long with the result that the upper echelons of industry, government and the Civil Service are short of technically competent people to the point of being incapable of managing this deficiency among their own ranks and still less appreciating the value of technical innovation coming from the lower levels.

Indeed, failure to recognise a "good thing" when they see it is our top people, whether it be in oil or in a nuclear reaction, is a main cause of our present economic plight.

The situation in the United Kingdom contrasts sharply with that of our continental neighbours and competitors. In France and Germany, in particular, industry, the Civil Service and most educational institutions are dominated by the graduates of the *Grandes Ecoles* and *Technische Hochschulen*, who have undergone a prolonged and rigorous training in science and technology. As industrial leaders they seem to master the intricacies of the balance sheet without too much difficulty and, miraculously, in those terms, often become politicians in one or two other European languages.

More important they have the necessary background to appreciate potential development areas in their technologically based industries, and it is here that they frequently have the advantage over their British counterparts. Worthwhile technological developments tend to be recognised and exploited while here they are largely ignored.

European "technocrats" get much and contribute much because of their mobility. A typical career may include periods in industry, the Civil Service and education, but this is not unusual in the UK in view of the Government's policy, anyone wishing to transfer from the Civil Service to a university would be rightly rejected on grounds of inactivity, and such a forbidding pension scheme makes any movement between these and industry penal in financial terms.

There is clearly no simple solution to this problem, but an obvious first step is an incentive scheme, preferably stopping short of compulsion, to attract an increasing proportion of our able students to science and technology. This may be accompanied by a greater action between industry and education for the former that a technological training area would be unusual in the UK. In view of the Government's policy, anyone wishing to transfer from the Civil Service to a university would be rightly rejected on grounds of inactivity, and such a forbidding pension scheme makes any movement between these and industry penal in financial terms.

Yours faithfully,
S. E. HUNT,
Head of department of physics,
University of Aston.

Engineering liberators

from Dr F. D. Cocks

Sir—The circular on liberal education to technical colleges was very well received by industry departments or indeed by industry when it was announced. I assume that engineers were the only people that needed liberating.

It is surprising in a country where technology for its survival depends on the development of new technologies that the engineering community is so slow to respond to the need for a more liberal education.

Such lectures as I have heard, balancing effect and hope, enable society to resolve the dilemma where it appears to have lost its way. It is a pity that the same time.

Yours faithfully,
F. D. COCKS,
Head of engineering department.



Mr Bill Gutteridge.

A book recently published by a former senior assistant registrar of the Council for National Academic Awards, unfortunately and undeservedly, does little for the reputation of this body. It has all the limitations of old-fashioned constitutional history in that it is overconcerned with the trivia of institutional development and conveys no sense of achievement in real human terms.

It suggests the tedium of hours of sterile, rather than stimulating, educational debate. As a longstanding member of the council's committees and boards I know this picture to be untrue, but the danger is that it might serve to reinforce the prejudices of a general public inclined to sympathise on emotional grounds with "Block Paper" views about the location of standards and quality, and those of academics similarly disposed.

Having in a polytechnic launched one of the original CNAA degrees in arts and social studies and then transferred to a university, which happily seems to appreciate a breadth of educational interest on my part, I detect here an urgent need to improve the image of the council's work.

Only the odd sensation, about a London polytechnic's internal affairs or a clash over the proposals put forward by the University College at Buckingham, make much impression on the public consciousness, and that largely irrelevant to the interests of potential students.

Tens of thousands of young people now have CNAA degrees and there are many interesting stories to tell of their achievements. They have been found, for example, researching, often under university auspices, in Warsaw or Nijmegen, working in Brussels for the EEC or in the United Nations in New York or lecturing in Saudi Arabia or Tanzania.

In some cases the special character of a CNAA course has given them a unique blend of skills. It should be part of the "confidence-building measures" for the institution to advertise this kind of thing. It is not the structure of the degree courses which matters but what they do for individual people or different from their university equivalents.

Michael Lane's book does, however, serve, albeit often obliquely, to remind us of some of the shifts and changes which have taken place within ten years. The emphasis of the council's activities on validation, which he

Design for Degrees, by Michael Lane. Macmillan, £5.95.

CNAA's untold success story

Bill Gutteridge discusses a new book by Michael Lane on the Council for National Academic Awards



Mr Michael Lane.

The claim that the written syllabus has progressively lost its status and authority has a reminiscent ring. The quality, intentions and understanding of academic staff are obviously more important. For this reason the book is the last of a series, department or group of staff which is now vital to the winning of CNAA approval especially for courses in the humanities.

The so-called "hidden curriculum" behind the syllabi and sometimes grotesquely detailed teaching schemes, may not only refer to the quality of extra curricular activity and to cross-fertilisation between the courses and departments; the euphemistically termed and covert "counter-course" for which the recognized curriculum is just a front is probably not a complete fiction. More generally the continued insistence, with rare exceptions, that each syllabus be examined separately is a matter for regret.

CNAA courses have been as quick as my to reflect the advantage in a student of being able to defer his final preference until he can make an informed choice—though that may be to beg the question on some matters.

On the whole, however, confessions on the subjects of, for example, the precise structure of honours and ordinary degrees, the quality of "industrial" training in sandwich courses and their suitability for all areas of study, and complementary and contrasting of studies, were a needed, saying much for the flexibility of the new institution and the level of the debates within it.

The notion of selecting students for distinct honours or ordinary degree programmes at the end of their first year of study came nearest to acquiring the status of a theological dogma—some of the earliest courses in arts and social studies were at least temporarily rejected because their architects properly did not think it right to discriminate in those terms at such an early stage in a student's progress.

The question of the validity of discrete and specialized vocational courses to degree level in, for example, catering, tourism and housing management is still, reasonably enough, a matter for debate. In the circumstances of approval of some of these, it is odd that nursing studies, which more obviously, like civil engineering, provides a broad based general education should have taken so long to get off the ground.

Some of the energy spent on the controversy over literacy and numeracy for all students might perhaps have been better spent at the other end by looking more closely at courses in all fields which are so narrow as to be virtually exclusively technical.

The intensity of its programme may well have inhibited the establishing of monitoring procedures which could have cumulative benefits for educational development as a whole. Whether internal self-validation by the colleges, if instituted, would work to promote their reputation and self-esteem, as some of them clearly think it would, is for the time being an open question.

It is a historical fact that the CNAA was in some respects the institutional heir of the National Council for Technological Awards (NCTA) which promoted the Diploma in Technology. There is, however, little doubt that in the first years of its existence those newcomers who wished to question the shibboleths of the earlier era had an uphill task.

Initially there was a spontaneous sympathy for large-scale propositions in this category as there was for new forms of examination and assessment. The subsequent tempering of sympathy with caution should not be regarded as reactionary. Taken overall, balancing the board's liberalism against another's conservatism CNAA provides the best if not the only national forum for the rational consideration of such questions.

This view is perhaps strengthened rather than invalidated by the fact, as Eric Robinson has noted in these columns recently, that the increasing proportion of colleges—or rather polytechnics—has tended to modify the innovative inclinations of, in a sense, self-selected and committed university teachers.

There is no doubt that the next five years or so will see more innovation, whilst in so doing the council begins to change its nature. Part-time degrees, which some departments thought of starting on a modular basis 10 years ago, have received the boost they needed from the Open University.

The possibility of collaboration involving a mixture of home study with attendance opens up a new prospect: some students, especially in the big cities, are beginning to connect a mixture for themselves by switching from correspondence tuition to full or part-time study.

The recent approval of a part-time Bachelor of Arts in humanities to start at Bolton Institute of Technology this autumn is an important landmark. Cooperation between universities and other institutions of higher education, with interesting consequences for what has seemed to some of us from its initiation a falsely differentiated binary system, is now capable of being facilitated by the established strength of the CNAA.

In a period of financial stringency there may be clashes between the various authorities, academic and administrative, over standards as related to material and staff resources. The maintenance of reasonable standards is clearly essential and there are signs that under CNAA auspices restraint, the proper use and development of staff and improved quality of the student's experience are not necessarily incompatible.

For the council's general value and function lies not directly as a forum for the discussion of educational ideas. Fully because, unlike the universities, its committees and boards have Department of Education and Science assessors in attendance. It is an important channel for direct communication, influence and even pressure. The social need and desirability of courses may not be its immediate concern but the learning of these and ultimate academic quality is often not far in sight.

The ultimate success or otherwise of the Diploma of Higher Education may well depend on the realization by all parties of the implications of policy on student grants for the nature of the two year programme. The same issue of four years, to a degree, rather than three—may arise (one hopes not necessarily) when the sixth form curriculum is reconstructed on a broader basis and degree courses are in consequence redesigned.

A meeting or conference of one of the more central of the CNAA subject boards is, because of its membership mix, capable of crystallising a broad range of academic opinion more quickly and surely than can otherwise be achieved.

Michael Lane's book misses an important opportunity to explore via the council's operations the real issues in higher education which the boards and committees are regulating and their influence on the lives and careers of individuals.

Mr Gutteridge is director of complementary studies at Aston University, Birmingham, and a member of the combined studies (humanities) board of the CNAA.

The search for the hidden meaning in literature

No one who is acquainted with both linguistics and literary criticism can have failed to observe that the perspectives in which academics from the one side or the other hold their material, their utterances, their very identities, are so disparate as to make communication between the two sides intermittent—to say the least.

The linguist cannot see the literary critic down in an argument: he stops the critic and challenges him to analyse an assertion he has made, pointing out that it contains dubious semantic assumptions, is distorted by value judgments. The critic replies and, typically, before he has reached the end of his first sentence he is invoked, Boccaccio, Virgil, Flaubert and D. H. Lawrence.

So diffuse and volatile are the arguments of a literary critic in full spate that the linguist is left wondering what the point of the dispute was and why he ever even tried. The literary critic meanwhile thinks: "What boring creatures linguists are! Wouldn't it be my dearth marry one." And that, so far as he is concerned, is that.

The study of literature has for some years lain neglected between the fields of the linguist and the critic. The linguist's positive inheritance and their preoccupation with "grammaticality" have tended to relegate native utterances to a limbo of pathological and syntactic deviance. Literary critics, on the other hand, have failed to develop adequate theoretical structures for their discipline.

In 1970 I was appointed to the editorship of a new journal, *Journal of Literary Semantics*, and the first two issues were subsequently reviewed in *The Times* (4.10.74) by Peter Conrad. The reviewer called me to task for questioning the reality of the literary "texture", citing a statement of the editor, "reference to 'my theoretical services' and an earlier book which provide the underpinnings, assumptions of literary semantics as I conceive of it."

Such were the words of the journal as I saw it, and I am sure that the reviewer was right to describe the journal as "regrettably modern", ascribing it with "poor style" and arguing that criticism, unob-

structed by theoretical caution, ought to have more of "delighted practice". I will, by way of reply, attempt to summarize in the remainder of this article what I take to be the aims of literary semantics.

Literary semantics takes as its starting point the need to investigate the epistemological problems which tend to be raised more acutely in literature—I omit the inverted commas in deference to the reviewer—than in any other mode of linguistic utterance.

A work of literature is, on the one hand, not cut in history; it is also a structured signal which causes psychological responses. Psychology, neuropsychology, mathematics, anthropology, sociology, history, and many other studies are important contributors in the search for truth in literature.

More specifically, it is important to start with an acknowledgement that a work of literature is a linguistic utterance, and is analysed in terms of the rigid differentiation between transmission and reception which has been a fundamental division in linguistics for many years.

Literary semantics must aim to formulate adequate principles. I believe that a science should possess a rigorous empirical component and an imaginative, speculative one, these two components being mutually corrective.

At the empirical level in literary semantics, we begin with the criterion of principles: an adequate principle is one which, having been defined and demonstrated, can be operated independently by other linguists.

This enables us to proceed to formulations like the principle of objectivity: at the empirical level, the linguist recognizes only those entities which are textually signalled. Such conditions seem to me self-evident. This in turn leads us to the need for careful definition of terms. We begin with a meta-theory of knowledge, and then work downwards, carefully defining the concepts of each level in terms established in other levels. The aim is not to omit the elegance of axiomatic systems, but simply to make descriptive and explanatory possible. While I accept that such a

philosophical assumption which underlies the various levels of critical statement. The present unhappy situation seems to be that the literary critic is critical of everything except his own assertions.

Literary semantics, next, must be brought into relation with the theory of science. And it follows almost as a corollary of this that the literary semanticist should attempt to relate his study to other disciplines.

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Literary semantics must aim to formulate adequate principles. I believe that a science should possess a rigorous empirical component and an imaginative, speculative one, these two components being mutually corrective.

At the empirical level in literary semantics, we begin with the criterion of principles: an adequate principle is one which, having been defined and demonstrated, can be operated independently by other linguists.

This enables us to proceed to formulations like the principle of objectivity: at the empirical level, the linguist recognizes only those entities which are textually signalled. Such conditions seem to me self-evident. This in turn leads us to the need for careful definition of terms. We begin with a meta-theory of knowledge, and then work downwards, carefully defining the concepts of each level in terms established in other levels. The aim is not to omit the elegance of axiomatic systems, but simply to make descriptive and explanatory possible. While I accept that such a

with consistency reject these constraints, I cannot understand how the vast numbers of academic critics in universities, given their humane ideals, are able to consult themselves to operating an examination system to English.

This brings me back to *The Times* review of my journal. If enjoyment is the purpose of reading literature, then why set examinations in it? And if the purpose is serious study, why do the critics not define their terms, formulate principles and show that they are aware of the "modality" of their own assertions?

An examination is a measuring instrument, and the undergraduate has the right to know what the principles and assumptions of his examinations are. For literary semantics, then, the task of clarifying the objectives implicit in a university course in English is of paramount importance.

When these have been determined, we need experimental investigation with the universities to ascertain whether literary education is in fact achieving what it sets out to.

The reviewer's allusion to pnp art strikes me as ironic. Surely no one set of academics has done more to assist the cultural backsliding to which he refers than those literary critics who, confronted by the most taxing philosophical problems of all, abjure philosophy; who make dogmatic general assertions about their own and others' psychic processes, yet remain apparently unaware that psychology is relevant to what they are doing.

These are the same gentlemen who, chomping language as the object of their study, spurn linguistics; and who, having driven their undergraduates over a three-year course of intensive literary enjoyment, assess through a formal and grueling examination how delightfully they have practised.

Trevor Eaton

The author is editor of the *Journal of Literary Semantics*.

BOOKS

Trade union story

Playe in England was merely the excuse for an elaborate hill climbing considered an art. When introduced again in English, merchants and nobles would not have felt it quite elsewhere, did it voluntarily.

Dr Ramsey's detailed investigation into Antwerp's supremacy in "the growing Northern European economic entity" suggests that it was always a little Illinois, Anglo-German, Dutch, and Flemish, and that it was peculiarly important in these years broke the monopoly by encouraging the transfer of the cloth mart to Emden. In the short run that move was a failure—dyeing facilities, for instance, were inadequate—but Emden did get some new energy, and the Dutch came for the southward, a prelude to more forceful and persistent marketing efforts. In 1566 they went back to Antwerp—but things were never quite the same.

What followed will be the main theme of Dr Ramsey's second report, the rise of the English merchants of many threads in Dr Ramsey's rich text: stiff with essential narrative. It is not easy to take in all at one reading. Another strand follows London itself and how a firm name was forged between the Continent and the great English merchants of the 16th century on interdependence though lost until 1640.

Other flashes, brief but sharp, illuminate diplomatic history and particularly the personalities of Elizabethan envoys, to whom but a passing allusion is made.

BOOKS

Unfeeling

The Music of Stockhausen
by Jonathan Harvey
Faber, £6.50
ISBN 0 571 10251 4

A rather small group of musicians, particularly those who chose to work in the avant-garde, intellectual, didactic and perhaps spiritual interests will welcome this book. It is a collection of analytical essays that covers some works (Plene Pieces V and X, Zeitmaße, and Gruppen) in considerable detail, and others rather sketchily. Stockhausen's work is reviewed chronologically, with the advantage that to some extent the reader shares the developing thought of the composer.

In the opening chapter the author suggests that the turmoil of pre-war Germany engendered in the young Stockhausen a deep distrust of emotional expression: "Perhaps the war finally dashed, for this generation, any lingering hope that musical structure could continue to play second fiddle to the emotions in the making of a piece." This is linked to specific technical procedures. "Things normally left to good taste and fine feelings such as dynamics, were no longer emotionally determined, but formally determined, and what's more, separately determined."

After the early years biographical details are virtually ignored, and we read of Stockhausen's extraordinary musical development, from the pointillist, total serialism (celebrated by Messiaen) of the early *Kreuzspiel* through to the compositions in "group" form of the middle fifties, and thence to the "moment-form" works and to "intuitive" music. In general the author does not offer exhaustive analyses, but an exposition of the principles of composition, with charts, diagrams and enough commentary to guide one's way through the score. To use the book fully, one does need access to the scores and recordings of the works under discussion. It is essentially an aid to the study of this music.

The chapter on *Gruppen* for three orchestras is the core of the book. Its 22 pages contain the fullest discussion of any of the works, and the author succeeds in bringing the many complexities of this piece into clear focus. The analytical charts here are particularly helpful. Another key work, *Momenta*, is disappointingly dispatched in less than one page. Admittedly no score of this work is available, but the treatment here does not do justice to its importance in Stockhausen's output. In some ways, indeed, it is more "control" than *Gruppen*.

In view of an early mention of "process" ("Webern wrote some of the first music in which the musical idea... is the process employed, as opposed to its being a statement that arises within the process"), it is surprising that Dr Harvey does not explore the notion to any extent, particularly in view of its increasing relevance to Stockhausen after *Momenta*. This recognition of composition as process is surely inherent in everything Stockhausen has written since 1962, and makes the future music of *Arz den Stelen* a natural step. It could clarify the statement "we have blue-print work like Plus-Minus which offer form without content", where to my thinking what Stockhausen is offering is a process, or an intention of a process.

The book bears one of two marks of late arrival. The manuscript was evidently completed in 1971, since there are two appendices, dated 1972 and 1974. The first is crucial, since it contains analysis and comment upon *Mixtur*, a work which in many ways represented a previous stage. Some editorial revision is called for: presumably "curved lines" (p.22) should read "brackets", and the headings on pp.23 and 25 might usefully be changed to the title of the work actually under discussion. It is not true that a multiple of 100 by any whole number occurs throughout the scale of *Stunde II*.

These relatively minor points aside, this book is wholeheartedly recommended to all students of Stockhausen's work. It is an intelligent and perceptive study of one of the most interesting musical minds of the century.

Aesthetic intensity

The Victorian Sages: an Anthology of Prose
edited by Alan W. Bellringer and C. J. Jones
Deut, £3.25 and £1.25
ISBN 0 460 10730 5 and 11730 0
Jane Austen
by Douglas Bush
Macmillan, £5.95
ISBN 333 142071
A Brontë Companion
by V. B. Pinch
Macmillan, £10.00
ISBN 333 144250

Taking the lead from John Holloway's book, *The Victorian Sage* (1953) Alan Bellringer and C. J. Jones offer a usefully shaped and pruned anthology of earnest and paranoiac thinkers whose wisdom rings on with more—and occasionally less—than reason. The extracts are flexibly classed, according to tone, method, subject or author, in order to illustrate the central core of platitudes and self-conscious thinking by Victorian sages about their society. Many of the issues are alive—class, cultural conflict, feminism, productivity, work, power and the popular media. On such subjects the very datedness of sonorous styles is moving. As the editors insist, it is the ideas which they have wished to combine and emphasize, but the style is crucial, as the individual utterance and as a common means of intimate address.

Newman looks out into the world of men, imagining his distress in the bleakness of an unreluctant mirror; Macaulay thinks of a misbegotten caravan rolling through sands; Mill of a well-armed ship without a sail; Ruskin of pine points are polished by the crystal and of human souls; Peter of a swimmer washed beyond the bar; Morris of a counting-house on a cinder-heap. Division of thought and faith is sharp, between Christian and agnostic, pessimist and optimist, aesthete and practical socialist, but the arguments vibrate with particular images of uncertainty, weaving existence. The sages' language is urgent. Life is too short, pleads Ruskin, for the soul's tortoise to be made as perfect and precise as a machine; it is too short, refines Peter, for us not to "be for ever curiously impressing and courting new impressions." At this remove, even aesthetic intensity has a moral ring.

It would be elevating to be able to claim, in these hard times, that literary criticism justifies its existence.

Barbara Hardy

Blowing his own trumpet

Style and Idea: Selected Writings of Arnold Schoenberg
edited by Leonard Stein with translations by Leo Black
Faber, £17.50
ISBN 0 571 09722 7

Schoenberg's achievement is still a matter for dispute, even among those who acknowledge the extent of his influence. It has become a cliché to claim that his music will never be popular, since it was consciously "timed" at an intellectual elite. Yet those who both admire and enjoy his works are bound to regret a situation in which a figure of major creative significance in the evolution of the language of music should continue to evoke positive hostility even among trained musicians.

In these circumstances, it might seem all the more important that Schoenberg's more important ideas, and the editorial decision to group his prose writings, should receive wide circulation. He was a particularly articulate exponent of those aspects of his own music which aim to ensure unity and comprehensibility, and which also link him closely with certain more immediately appealing musical contemporaries, notably Brahms and Mahler. The original edition of *Style and Idea*, published in 1950 and long out of print, was well suited to the specific purposes of ascertaining Schoenberg's traditional qualities and presenting his technical work in a

features so strongly in many of his letters and other writings. Today the position is different. A sumptuous complete edition of the music is in progress, but the fact that it is apparently not being paralleled with a complete edition of the prose works doubtless reflects the prevailing ambivalence. Obviously the prose writings are not common currency in quality or importance with the actual compositions; yet in an age which cherishes such significance to scholarly documentation, the gap between the total of some 700 separate sections for the "Poems, Lectures, Essays, Notes" chapter of Josef Rufer's Schoenberg Catalogue and the 104 items in this new edition of *Style and Idea* is disturbingly large. In fact the book inhibits the non-musician's hand between the highly selective original version and a complete edition. It includes a great deal of repetition and duplication, and the editorial decision to group the contents by types of subject rather than in simple chronological order tends to obscure any evolution of viewpoint or attitude which the various repeated "themes" might display.

It is the Schoenbergian blend of intellectual rigour and involuntary inspiration which is most strikingly illustrated in the book. "Nothing is more unpopular than 'Brahm'," is a pertinent theme in "Robert Schumann as Critic" (1931), but it follows hard on the assurance that "what occurs to one as 'inspiration' is not at all the same but the work" in

Form before language

The Medieval Theatre
by Glynn Wickham
Waldenfeld & Nicholson, £6.00
ISBN 0 297 76778 X
The English Mural Play
by Robert Potter
Routledge & Kegan Paul, £6.95
ISBN 0 7100 8033 6

Critics of medieval drama have always liked tackling large-scale historical surveys of their field. Here, Glynn Wickham deals with a large amount of material relating to dramatic activity in Europe between the tenth and sixteenth centuries, while Robert Potter traces the origins, history and influence of the mural play, relating mainly to the period between the late fourteenth and the early seventeenth centuries.

Professor Wickham has scathing things to say about "generations of specialists in English literature" who have failed to restore medieval drama to the life it so richly had, and there is something in this. On the other hand, we really need another survey of all this largely well-known material, written by a noted authority in the field. The real need now is for sensitive analyses of medieval plays or groups of plays made in the full knowledge of the varied dramatic traditions at work and the experience of modern productions. Richard Axton's modest and lucid study of *European Drama of the Early Middle Ages* has shown what can be achieved in this area; Professor Wickham, however, has yielded to the urge to throw a mass of information about medieval theatrical activity at the reader, with appropriate generalizations about its significance, "relating the temptation to treat it as literature."

Professor Wickham takes us through the centuries at a smart pace. The subject is divided into three broad beads, the theatres of religion, recreation and commerce, and the author lets no variety of mimetic activity go unmentioned, however briefly. Readers new to the field will find the dense minutes of the account valuable. On the other hand, Professor Wickham is often forced to give very compressed accounts of many aspects of medieval life, such as iconography, ecclesiastical architecture, liturgy, history, education, primitive religion, chivalry and courtly conduct. Here is one example of the extreme

compression of the narrative: "... the Black Death swept across Europe between 1340 and 1350, decimating the population and giving vernacular languages an ascendancy over Latin in city life."

Dr Potter has a well-considered case for finding a pattern which he describes as a ritual or "ceremonies of experience" underlying the survival of human life in the early English moralities—though this subject of the moral education of the soul has been a major concern of many varieties of English literature quite unrelated to the mural play and its descendants. He traces the social and political transformations through which the pattern passed in the sixteenth century as it moved towards its "apotheosis" in the work of Shakespeare, and some of his contemporaries, as he shows how the form is still relevant in some aspects of the modern theatre. The variety of material covered is very wide—there is even a brief survey of the morality plays in Europe—and for most of the time the book appears to force Dr Potter's own little but bold and rather pedestrian plot, pointing out the recurrent features isolated in early moralities. The standpoint, then, is relatively neutral, as it seems to show that "the unity of the plays is deep and specific" in the fifteenth century, which leads him to neglect some of the reasons why the plays still be worth reading. Like Professor Wickham, Dr Potter has little to say about essential "literary" matters such as the use of language in the plays, still a major gap in our knowledge about early drama. His predominant concern is with the morally patterned nature of the plays, and there is a tendency to repeat the text as some sort of local temporary accretion. The sparse and acutely felt in the section on Shakespeare.

On the medieval period, Dr Potter is interesting about the details which the lost Paternoster plays of Bavaria, Lincoln and York really had on the establishment of morality plays, and its relation to potential doctrine. He explains how the medieval mind in the context of the long verse tradition on the Seven Deadly Sins, as in *Speculum Vitae*, supposedly the work of an early fourteenth-century York friar, and even entitled *Paternoster* in at least one manuscript.

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Richard Dawkins

Compendious

The Oxford Companion to Economics
edited by John Arlott
Oxford University Press, £9.50
ISBN 0 19 211538 3

The aim of this huge book is to help the reader understand a spot word or phrase, either live or on television. With this as the yardstick, the book is a success. It is a pocket-sized reference book, and it is the best of its kind.

The compendious is presented in an encyclopaedic form from A to Z, with a facing page to each letter. Every spot word or phrase is explained in a pocket-sized reference book, and it is the best of its kind.

No reviewer can resist the temptation of trying to find a technical, a game-giving approval by physical education on an international scale, launched a couple of years ago.

National health neglect

"Specialised Futures": Essays in Honour of Sir George Gedder
edited by G. McLachlan
Oxford University Press for Nuffield Provincial Hospitals Trust, £6.00
ISBN 0 19 721388 X

Rational Health Care
by Michael H. Conner
Croom Helm, £4.50
ISBN 0 85664 216 9

Decisions on Health and Social Services
by Brian Watkin
Methuen, £10 and £5.50
ISBN 0 416 15170 1 and 18080 9

Despite the claims made for and against the National Health Service and the achievements over the past quarter of a century, there are still few really good books which attempt any objective assessment of the service as a whole. For some readers, Conner's book may also appear to lack objectivity; his approach, as an economist, inevitably has the bias of the economist, but remains a very important book worthy of wide reading in the service.

It starts from the well-known concept of the iceberg of disease, that at any time there are many people with illnesses and symptoms quite like those of NHS patients who, for a variety of reasons, do not seek medical treatment. As he points out, "Fortunately for the taxpayer, not all health woes find expression in visits to the doctor." On the other hand some who seek medical care bring symptoms and conditions which are, at best, only marginally medical or within the trained competence of the doctor. Patient demand, therefore, is an irrational (or non-rational) expression of part of society's illnesses.

He goes on to examine the ever-increasing supply of resources (both manpower and material)

resources allocated to health care and the failure of this increased supply to reduce the demand for health care—as he points out, "Demand and many of the other architects of the service confidently expected. The inevitable present and continuing result will be the rationing of these scarce resources and poses the recent reorganisation of the NHS, whether this rationing can be made more rational."

He alleges that the irrationality of the present rationing must be put, in part or in whole, at the door of "clinical freedom". Clinical freedom leads to wide discrepancies in the treatment afforded (and the resources consumed) in treating patients with like conditions. He pleads for a re-examination of the concept of "clinical freedom" and claims the recent reorganisation is a necessary backcloth to this, but not the total solution. Many other criticisms of the NHS find their way into his thesis.

The NHS tacitly accepted that the activities of doctors were outside of managerial control. Management has decided what resources should be made available at each level, while doctors have been left free to decide their best deployment. In practice, of course, there are inseparable. For their part, the Central Department has been content to delegate responsibility downwards so that even long-term plans have reflected the sum of regional hopes and aspirations. The lack of research into indicators of need has enabled gross inequalities of provision to persist on the grounds that, in the absence of any evidence to the contrary, they might in fact, however accidentally, reflect needs.

Further, the nature of need has enabled the service to continuously claim shortages of manpower and other resources. It has remained easier to demand more of the taxpayer than to critically re-examine current practices and to prime out waste."

A. J. Willocks

Indian rural developments

Economic Theory and Planning: Essays in Honour of A. K. Dasgupta
edited by Asok Mitra
Oxford University Press, £3.95
ISBN 0 19 560522 5

These essays were presented to Professor Anura K. Dasgupta for his seventieth birthday. Corresponding to his two major interests over a 40-year period, the first part of the book is devoted to pure theory, with emphasis on welfare economics, equilibrium economics and capital theory. The second part, drawing on the postwar Indian experience, consists of essays on development.

Contributions on welfare economics are provided by Sir John Hicks and James Meade. The Hicks essay takes the form of a comment on the evolution of his own ideas as they relate to demand theory and welfare, tracing their development from the Hicks-Allen article of 1934, which originated in a desire to formulate demand theory in a way which would be useful to the economists then working on the utility foundations of modern welfare economics. Meade's contribution concentrates on the difficulties which arise for the welfare economist when the assumption of a stable preference ordering over time is relaxed. How, if at all, can the economist cope with the evaluation of public policies which may themselves imply some change in the consumer's preference ordering?

Taken together, these two essays offer no simple solution for the economist battling with the ethical foundations of welfare economics. But there is an optimistic tone to the Hicks essay, based on what he considers to be the step by step progress over the past 30 years in the development of a framework for the basic postulates of consumer behaviour—a view of economic science which is, in his opinion, "the most significant contribution to the debate on the foundations of welfare economics" by John H. Duesenberry and V. V. Shatt.

Walrasian concept of equilibrium in modern economics, as a conscious or unconscious doctrine, is traced to its roots in the Ricardian scheme. Other contributions in the first part of the volume include in the sphere of welfare economics a short critique by A. S. Guit of the use of the "welfare criterion" and Partha Dasgupta's essay on optimum population. Classical and Marxian modes of production, values, prices and exchange, are covered in contributions by Daniel Thorner, K. A. Naqvi, R. M. Goodwin, Amit Bhattacharya and Asok Mitra. On the latter side, Anura K. Dasgupta's essay on the development of a welfare economics in India, published a short time ago in *Economics*, may be re-read here with considerable pleasure.

The essays in the second part of the book range widely over aspects of employment and structural change, planning, education, fiscal and monetary policies. No one could criticize their authors for ignoring, or assuming away, the realities of the Indian situation. Underlying most, and echoed in accounts of empirical work, is a deep concern with the problems of the rural sector and the success or otherwise of "new" development strategies aimed at building up the rural economy. In the essay by Louis Lefebvre, A. Vaidyanathan and P. H. Prasad, there is a broad-mindedness of argument that the problems of the rural sector are far more complex than has been implied by government policies which simply aim to divert larger shares of investment funds into rural areas, given both the slow spread of known improved techniques of production, and what appears from empirical evidence to be the worsening plight of the rural labourer, experiencing a steady decline in real wages. What is being argued out in these essays, with varying degrees of emphasis, is whether it is possible for agricultural transformation to take place in India, within the existing economic and social framework.

Spatial data

Jamaica in Maps
by Colin G. Clarke
University of London Press, £2.50
ISBN 0 340 15390 3

In terms of planning the development and management of its man/land resource Jamaica has a problem common to most developing territories: essential statistical data are either not available or, if available, are very rarely used.

The publication in 1971 of the *National Atlas of Jamaica* was the first significant contribution to show the "spatial distribution" of many of the "major mappable characteristics" of the country's natural environment and resources. *Jamaica in Maps* carries the process a stage further. The author does not identify the type of reader for which the book is directed though he defines his aim as to provide the reader with a wide range of geographical material. This is done by presenting 42 sheets of maps and diagrams relating to various aspects of Jamaica and its resources, each sheet being accompanied by an explanatory text which is both lucid in style and concise in content.

The maps, cover many aspects of Jamaica including geology, education, electoral patterns and external trade; some subjects, such as Kingston Land Use, are considered in greater detail than others. The quality of the cartography is extremely good and with few exceptions the source of information is acknowledged. The temptation has been resisted of trying to put too much information on a single map; consequently, with rare exception, such as that showing African population distribution in Kingston, the maps give a clear visual impression of the spatial distribution patterns.

Comparative methods

The Interpretation of Multiple Observations
by F. H. C. Marriott
Academic Press, £3.50
ISBN 0 12 473450 2

Principles and Procedures of Multiple Matrix Sampling
by D. M. Shoemaker
Wiley, £6.00
ISBN 0 84410 153 3
Analysis of Variance in Complex Experimental Designs
by H. R. Lindman
W. H. Freeman, £7.80
ISBN 0 7167 0774 8

In the space of only ninety pages, all the main techniques of multivariate analysis are reviewed by Dr Marriott in *The Interpretation of Multiple Observations*. He does not cover the distribution theory underlying the methods but attempts to explain the types of data for which the various techniques are suitable. The style is very condensed; it is unlikely that anyone without previous knowledge of the subject will be able to understand much of the material covered and there are rather a lot of misprints which reinforce the view that it is unsuitable for a beginner. On the positive side, however, it is clear that the author has substantial practical experience in using multivariate data techniques. He frequently cautions the reader about the dangers of routinely applying standard methods, and also makes several useful points about the problems encountered in data handling.

The subject of Dr Shoemaker's book—multiple matrix sampling—is

rather obscure. Basically, it is a procedure for comparing the relative merits of different courses of instruction, reading programmes, etc. Normally in educational testing, the problem of interest is the ability of a particular student. In multiple matrix sampling, groups of students are assigned only subsets of the population of test items and from the results obtained, inferences are made about the performance of the whole population of students on every one of the items in the test. The book is intended for those wishing to apply the results: formulae are given but not derived. As a consequence, the book is of very limited interest; although there is a comprehensive bibliography, of the book's three hundred pages, two hundred list computer programmes and sample outputs. It would have been better if the text of the book had been issued as a monograph available as an additional extra.

Lindman's book is an extensive account of analysis of variance calculations. The book uses no calculus or linear algebra and is suitable for students of psychology and other social sciences. In the main, the explanations are very good. But in a book of this type a major effort should be made to give as many examples of real data as possible. Examples of the kind "hypothetical data, shoe sizes versus intelligence test-scores for 26 randomly selected school children" are not really going to teach anything other than the routine application of formulae.

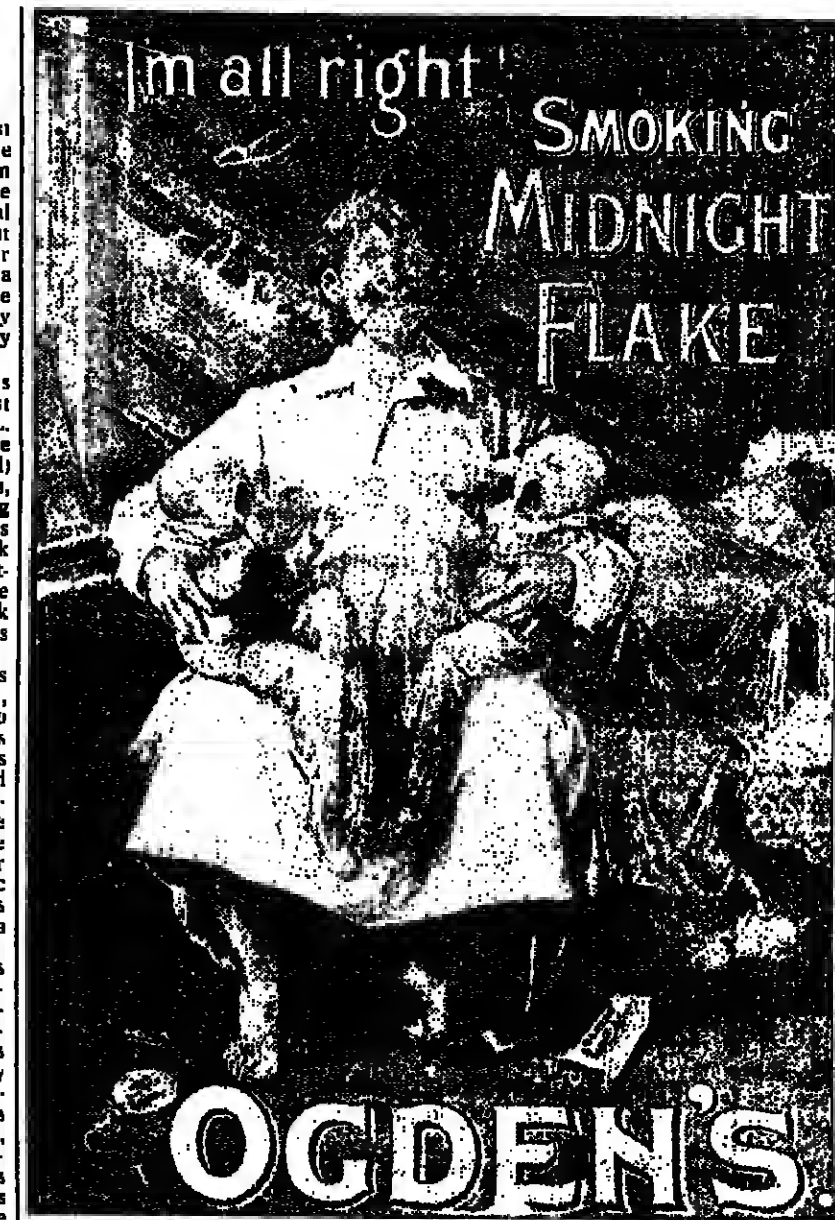
R. J. Reed

This week's reviewers

Barbara Hardy, professor of English literature at Blackheath College, London, has published "Critical Essays on George Eliot" and "The Exposure of Language" by Rudolph P. Thackeray.

Barbara Ingman, lecturer in economics at the University of Shiford, has a forthcoming book entitled "Women in Society" with E. Enckell.

Mr. G. H. Dawkins is raising research fellow in the department



Advertising heroine in Victorian times an ogre-faced business—even Queen Victoria herself appeared on a postage stamp. The "Victorian World" edited by George Perry and Nicholas Moscon. Times Publications, £5.95.

Classified Advertisements

Index to Appointments Vacant, Wanted and other classifications

Appointments vacant

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Universities

free university amsterdam

At the Institute for Professional Training of High School Teachers, Free University, Amsterdam there is a vacancy for the office of

director/directress

The Institute is a cooperative community of general and subject teaching methodologists.

Task-description:

The appointee will be charged with

- the scientific guidance of the development of teaching-programme of the Institute;
- the initiative and guidance of research regarding the training of high school teachers at university level;
- the maintenance of external contacts.

The director is supplemented by an administrative manager and executes its activities in cooperation with the council of the Institute.

It is being considered that the appointee should be a teaching methodologist (either majoring in educational psychology or any subject teaching method) with a special interest in the educational aspects of the training of high school teachers at university level. Experience in this connection might be considered a recommendation.

Appointees are expected to concur with the Christian objective of the Free University.

Written applications, mentioning vacancy number 703-2196, are expected preferably before September 1, 1975 at the Dpt. of Personnel Affairs, De Boelelaan 1108 (Postoffice Box 7161), Amsterdam (Netherlands).

AUSTRALIA

UNIVERSITY OF WESTERN AUSTRALIA
Perth
Psychology

Applications are invited for the position of Lecturer in Psychology. The successful candidate will be responsible for the teaching of Psychology to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Western Australia, Perth, Western Australia 6009.

AUSTRALIA

UNIVERSITY OF WESTERN AUSTRALIA
Perth
Economics

Applications are invited for the position of Lecturer in Economics. The successful candidate will be responsible for the teaching of Economics to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Western Australia, Perth, Western Australia 6009.

AUSTRALIA

MONASH UNIVERSITY
Melbourne
OBSTETRIC PHYSICS

Applications are invited for the position of Lecturer in Obstetric Physics. The successful candidate will be responsible for the teaching of Obstetric Physics to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, Monash University, Melbourne, Victoria 3000.

HEAD OF DEPARTMENT

In August, 1973, the Melbourne State College, at that time the Melbourne College of Education, became an autonomous institution as a constituent college within the State College of Victoria, Australia. The College is in a phase of development business district of Melbourne. Its current enrolment of 3,800 equivalent full-time students makes it the largest centre for teacher education in Australia. The College is in a phase of development towards the award of degree; one of the four-year courses leads to the award Bachelor of Education and accreditation with respect to another four-year course is being pursued. Heads of most of the teaching departments were appointed early in 1973, but several vacancies have not been filled. The College wishes to make further appointments commencing with the positions named below.

TWO POSITIONS

Head of Department of:
Educational Psychology
English and Foreign Languages

Courses at Melbourne State College are orientated primarily towards teacher education. Therefore it is desirable that applicants should have qualifications and experience in education and postgraduate qualifications in a relevant area of study.

Salary: \$20,202 (Australian) p.a.
Assistance will be provided with relocation expenses.

Closing date: Friday, 19 September, 1975.

Further information about each position, including method of application, may be obtained from:

The Registrar
Melbourne State College
757 Swanston Street Carlton Vic. 3053
Australia

Please mark correspondence 'Attention Staff Office'.

FU BERLIN

An der Freien Universität Berlin sind folgende Stellen zu besetzen:
Im FB 17 - Neuere Fremdsprachliche Philologien - oder an der FB 4 - Zentralinstitut für Sprachlehre - zum 1.10.75 die Stelle zweier:

**Akademischer Räte und
Lektoren (AH 1/AH 2)**

Für Englische Sprachpraxis.
Aufgabenstellung:
(a) Übersetzungspraxis; Grammatik, Phonetik und Phonologie.
(Kennziffer: 1702/36)

(b) Übersetzungspraxis; Grammatik, Essay, Writing, Oral Practice, and Testing.
(Kennziffer: 1702/34)

Erforderliche Voraussetzungen:
zu (a) B.A. (double honours) oder M.A. oder B.A. oder schottischer M.A. und Diplom of Education oder Diploma of Applied Linguistics oder TEFL Certificate oder TESL Certificate in mindestens einer lebenden Sprache, Lehrfahrung und gute Deutschkenntnisse.

zu (b) B.A. (double honours) oder M.A. in mindestens einer lebenden Sprache, Lehrfahrung und gute Deutschkenntnisse.

Bewerbung wird erwartet:
zu (a) Verfüglichkeit auf den genannten Gebiet. zu (b) Diplom of Education oder TEFL Certificate; Veröffentlichungen auf den genannten Gebieten.

Die Stellen sind zu besetzen zum 1.10.75. Bewerbungen sind bis zum 1.10.75 einzureichen.

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AQUEDEN

THE UNIVERSITY
ASSISTANT DIRECTOR OF
RESEARCH IN EDUCATION

Applications are invited for the position of Assistant Director of Research in Education. The successful candidate will be responsible for the coordination of research in education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, Aqueden University, Aqueden, Victoria 3000.

AUSTRALIA

UNIVERSITY OF QUEENSLAND
St. Lucia
Lecturers in Education

Applications are invited for the position of Lecturer in Education. The successful candidate will be responsible for the teaching of Education to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Queensland, St. Lucia, Queensland 4072.

AUSTRALIA

UNIVERSITY OF NEWCASTLE
New South Wales
ABN STUDIES

Applications are invited for the position of Lecturer in ABN Studies. The successful candidate will be responsible for the teaching of ABN Studies to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Newcastle, New South Wales 2308.

AUSTRALIA

JAMES COOK UNIVERSITY
North Queensland
Lecturers in Education

Applications are invited for the position of Lecturer in Education. The successful candidate will be responsible for the teaching of Education to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, James Cook University, North Queensland 4811.

AUSTRALIA

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Universities continued

UNIVERSITY OF THE WEST INDIES-JAMAICA

Applications are invited for the following posts:

(a) DIRECTOR OF REGIONAL PRE-SCHOOL CHILD DEVELOPMENT PROJECT

In the Department of Extra-Mural Studies. Applicants should have training, experience and competence in: Administration, Child Development and Education/Adult Education. The project aims to encourage and improve services for the pre-school child throughout the West Indies. It will be based around a Pre-School Child Development and Training Centre located on the Mona campus in Jamaica. This centre will embrace the following principal functions:

- Operation of a model day care centre;
- Training of personnel from the region, primarily for supervision of day care programmes;
- Facilitating research in child development;
- Development of parent education programmes;
- Provision of regional seminars and workshops;
- Dissemination of relevant information and programmes throughout the region.

(b) SENIOR RESEARCH FELLOW/RESEARCH FELLOW INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

Candidates must be specialists in Monetary Economics, with a good knowledge of the Caribbean area, and with research and teaching experience. The appointee will be based in the Institute of Social and Economic Research, University of the West Indies, Mona, Kingston 7, Jamaica. Detailed particulars are available from the same source as for the Lecturer in Monetary Economics post. Salary scales as for Lecturer in Monetary Economics post.

Applications should be sent to the Director of the Institute of Social and Economic Research, University of the West Indies, Mona, Kingston 7, Jamaica. Closing date: 15 September 1975.

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CAPE TOWN

THE UNIVERSITY
LEARNERS AND ASSISTANT
TEACHERS IN THE
DEPARTMENT OF
EDUCATION

Applications are invited for the position of Lecturer in Education. The successful candidate will be responsible for the teaching of Education to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Cape Town, Cape Town 7700.

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NATAL

THE UNIVERSITY
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OTAGO

THE UNIVERSITY
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DEPARTMENT OF
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Applications are invited for the position of Lecturer in Education. The successful candidate will be responsible for the teaching of Education to students in the Faculty of Education. The position is full-time and permanent. Salary is \$12,000 per annum. Applications should be sent to the Director of the Faculty of Education, University of Otago, Otago 9000.

OTAGO

THE UNIVERSITY
LEARNERS AND ASSISTANT
TEACHERS IN THE
DEPARTMENT OF
EDUCATION

Applications are invited for the position of Lecturer in Education. The successful candidate will be responsible for the teaching of Education to

Polytechnics continued

Queen Margaret College
EDINBURGHConsumer Education and Research
APPOINTMENT OF
DIRECTOR of CENTRE

Applications are invited for appointment to this newly-established post in charge of a Centre for Consumer Education and Research in Scotland (CERES) set up to develop the on-going commitment of the College to work in this field. Queen Margaret College, founded in 1875, is a Scottish Central Institution offering courses at Degree and Diploma level. The curriculum of the College includes full-time courses in Home Economics, Institutional Management, Dietetics, Nursing, Health Visiting, Speech Therapy and Drama.

Salary scale £6,000-£7,716 per annum.

Application forms and further particulars from:

The Secretary, Queen Margaret College,
38 Clerwood Terrace, Edinburgh, EH12 8TS. Tel: 031-334 8111.

LONDON

THAMES POLYTECHNIC

SCHOOL OF CIVIL

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Overseas

LIBYAN ARAB REPUBLIC

BENGHAZI UNIVERSITY

FACULTY of SCIENCE, ENGINEERING and AGRICULTURE

Require staff to teach English. Applicants should have experience in teaching English as a Foreign language and should have a Masters or Diploma degree. The successful applicants will be teaching students who are studying technical and scientific subjects in English.

FACULTY of ARTS

Require staff with Masters Degrees or Ph.Ds. in Linguistics. The academic year begins 1st September, 1975.

SALARY RANGE
ANNUAL SALARY AND INCREMENTS IN LIBYAN DINARS

Post	Salary Range From To	Increments	Number of increments
Professor	4,800-5,820	120	8
Associate Professor	4,200-5,520	120	8
Assistant Professor	3,800-5,000	100	6
Lecturer	3,200-4,800	100	6
Assistant Lecturer	2,800-4,000	100	6

N.B.—Starting salary depends on the experience of the applicant. One Libyan Dinar is equal to £1.40.

Housing, furniture allowances and travelling expenses will be paid by the University. Medical services in Libya are free.

Applicants should write to Academic Appointments Department, General Administration, University of Benghazi, Benghazi, Libyan Arab Republic.

Librarians

NORTHUMBERLAND

COLLEGE of EDUCATION

Potters, Newcastle upon Tyne

DEPUTY LIBRARIAN

£2,300 to £4,377

Application invited from

qualified persons for the

post of Deputy Librarian

in the College of Education

Potters, Newcastle upon Tyne

P.O. Box 145, Newcastle LE1

will.

Application forms, returnable

to the Librarian, College of

Education, Potters, Newcastle

upon Tyne, will be available

from the Librarian at the

College of Education, Potters,

Newcastle upon Tyne.

The Librarian at the

College of Education, Potters,

Newcastle upon Tyne, will

be pleased to provide

further information.

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GIPPSLAND INSTITUTE OF
ADVANCED EDUCATION

LECTURERS

IN SCHOOL LIBRARIANSHIP

Applications are invited for the position of Lecturer in School Librarianship at the Gippsland Institute of Advanced Education. Two lecturers are needed to the School of Education for newly established courses in School Librarianship, one to take up duties as soon as possible, the other to commence 1 January 1976.

This year the Institute has introduced an Associate Diploma in School Librarianship, which is being offered initially to trained teachers. A Bachelor of Education with a School Librarianship strand, catered for students who do not already have a teaching qualification. School Librarianship subjects are being taught externally, and it is likely that the majority of students in future years will be external.

Two lecturers appointed will be required to support the School Librarianship subjects. Applicants should have good academic and professional qualifications in teaching and librarianship, and the ability to contribute to a lively and innovative programme within the School of Education. Preferred areas of experience: Children's Literature, Curriculum Development and Multi-media Materials. Teaching experience is desirable.

GENERAL. The Institute's academic staff are expected to contribute to the teaching of their disciplines in team situations in multi-disciplinary degree and diploma programmes, in both internal and external teaching programmes. In addition to the programme offered within their own School, staff may also be required to contribute to programmes offered within other Schools.

SALARY will be according to qualifications and experience within the Institute's salary scale. Lecturers will be currently \$A11,655 to \$A15,644.

CONDITIONS include a superannuation scheme, provision for recreation and study leave, and an attractive staff housing scheme to provide finance for building or buying a home. Rates for each appointee and family, reasonable removal costs and a settling-in allowance will be paid. Assistance may be provided, if required, in obtaining travel, housing. Further information may be obtained from the Registrar.

APPLICATIONS giving full personal particulars including qualifications, experience, present position, the names and addresses of three referees, telephone number and a small personal photograph should be addressed to:

The Registrar,

Gippsland Institute
of Advanced Education

P.O. Box 42, Churchill, Victoria, Australia, 3842.

The British Council

invites applications for the following posts:

Lecturers in English (Dahomey)

University of Dahomey, Cotonou

One lecturer for Department of Education—January 1976, one for the Department of English—October 1976. Graduates with overseas TEFL experience and knowledge of French essential, preferably with TEFL qualification.

Salary: £3,385 to £4,264 p.a., tax free.
Benefits: overseas and education allowances; full accommodation; medical scheme. Two-year contract. 75 HU 100, 101

Lecturers in English Language

(Singapore)

Ngee Ann Technical College

Three senior and four junior TEFL lecturers in ESP. Graduates of UK university, preferably with TEFL qualification; several years relevant experience for senior posts.

Salary: senior posts—£2,928 to £5,424 p.a.; junior posts—£1,788 to £4,936 p.a.
Benefits: rent allowance; medical scheme; annual bonus. Two-year contract, renewable. 75 UO 138-139

Teacher of English (Ivory Coast)

Ecole Normale Supérieure, Abidjan

To teach English with TEFL methodology. Degree with TEFL qualification, overseas experience, good command of French essential.

Salary: £3,385 to £4,264 p.a., tax free.
Benefits: overseas and education allowances; full accommodation; medical scheme. Two-year contract. 75 HU 100, 101

Teacher of English (Mexico)

Anglo-Mexican Cultural Institute, Guadalajara

Graduates with TEFL qualification and experience. Salary: £2,746 to £4,264 p.a.

Benefits: overseas and education allowances; full accommodation; medical scheme; employer's pension. UK superannuation. Two-year contract. 75 UO 101

Initial enquiries: Telephone 01-499 8011, ext. 45.

Return fares are paid. Local contracts are guaranteed by the British Council. Please write, briefly stating qualifications and length of appropriate experience, quoting relevant reference number for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1V 2AA.

Applications are invited for the following new senior academic appointments in the School of Business and Social Sciences at the Cippoland Institute of Advanced Education:

PRINCIPAL LECTURER / SENIOR LECTURER IN ENGLISH

Applications are invited from well-qualified scholars with established research and teaching experience in post-graduate English Literature, in particular, candidates should be able to demonstrate a capacity for academic leadership, skills appropriate to the effective teaching of external courses and the ability to prepare and teach new courses in English and nineteenth century literature. The successful candidate will be required to participate fully in the future development of a rapidly expanding multi-discipline degree programme which is also geared to the needs of students enrolled on other courses.

PRINCIPAL LECTURER / SENIOR LECTURER IN SOCIOLOGY

Applications are invited from Sociologists with strong academic qualifications, extensive teaching experience and a high level of interest in applied social science. The successful candidate will be required to provide academic leadership and coordinate the teaching of Sociology as well as teaching in one or more of the Sociology units currently offered. It is expected that an Associate Diploma in Welfare Studies will be introduced in the near future and it is desirable that the Principal Lecturer/Senior Lecturer in Sociology should have expertise and interest in this field. Candidates with experience and/or skills relevant to the development of courses for external students will be given special preference.

PRINCIPAL LECTURER / SENIOR LECTURER IN MATHEMATICS

The Principal Lecturer/Senior Lecturer will be expected to make a significant contribution to the development and teaching of Mathematics within the Institute's degree and diploma programmes and to provide academic leadership in team teaching situations. Well-qualified candidates with appropriate experience at a senior level in tertiary education, contacts or industry relating to any field of Mathematics will be seriously considered. However, the Institute particularly wishes to add a staff member with an interest in econometrics to its staff.

GENERAL. The Institute's academic staff are expected to contribute to the teaching of their disciplines in team situations in multi-disciplinary degree and diploma programmes, in both internal and external teaching programmes. In addition to the programmes offered within their own School, staff may also be required to contribute to programmes offered within other Schools.

SALARY will be according to qualifications and experience.

Principal Lecturer — \$A18,621 p.a.
Senior Lecturer — \$A15,644 to \$A15,444 p.a.

CONDITIONS include a superannuation scheme, provision for recreation and study leave, and a selective staff housing scheme (to provide finance for building or buying a home). Rates for each appointee and family, reasonable removal costs and a settling-in allowance will be paid. Assistance may be provided in obtaining travel, housing. Further information may be obtained from the Registrar.

APPLICATIONS giving full personal particulars (including qualifications, experience, present position, the names and addresses of three referees, telephone number and a small personal photograph) should be sent to the Registrar.

The Registrar,

Gippsland Institute
of Advanced Education

P.O. Box 42, Churchill, Victoria, Australia, 3842.

Administration

LEICESTER

THE UNIVERSITY

The Careers and Appointments

Service has a vacancy

for an INFORMATION ASSISTANT

The post involves un-

derstanding and maintaining an

up-to-date careers library con-

taining files on employers,

types of work, and postgraduate

education. The holder of the

post will be required to

assist students in their

choice of careers, and to

provide general advice and

information on the

university's work.

Candidates should preferably

have a degree in a relevant

subject, and a minimum of two

years' experience in a relevant

post. The successful candidate

will be offered a salary of

£2,746 to £4,264 p.a.

Further information and

application forms can be

obtained from the Registrar,

The University,

Leicester, LE1 7RH.

General Vacancies

FAIRMEADOW HOSTEL

MAIDSTONE, KENT

For the rehabilitation of

alcoholic men and women

Applications are now invited

for a Resident Manager for this

hostel. The post involves un-

derstanding and maintaining an

up-to-date careers library con-

taining files on employers,

types of work, and postgraduate

education. The holder of the

post will be required to

assist students in their

choice of careers, and to

provide general advice and

information on the

university's work.

Candidates should preferably

have a degree in a relevant

subject, and a minimum of two

years' experience in a relevant

post. The successful candidate

will be offered a salary of

£2,746 to £4,264 p.a.

Further information and

application forms can be

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CIVIL
ENGINEERING
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£7,600 TAX-FREE

British Aircraft Corporation has vacancies on its major defence contract in Saudi Arabia for qualified Civil Engineering personnel to undertake the following duties:

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Applicants for these senior posts will be required to undertake project management of the consultants and contracting work, involving liaison with clients, monitoring design and construction, together with progress and quality control.

Candidates should be aged 30-60 and have attained suitable building or civil engineering qualifications. Previous experience of high industrial and domestic installations is required, preferably coupled with previous overseas experience.

Applications for these positions are invited from U.K. citizens holding British passports. Initially, contacts are offered for a two-year period which is extendable, and salary and bonus payments are paid free of tax. Additional benefits include free bachelor accommodation and messing, medical care, personal insurance, and frequent and generous travel-paid home leave.

Please write giving personal and career details, quoting Ref. No. 334/TES, to:-

Mr. W. M. Swan,
Principal Personnel Officer (S.A.);
Saudi Arabian Support Department,
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